
**Madagascar
Landscape
Development
Interventions**



Workplan 2001 - 2002

**Volume I : Overview and LDI Regular
Activities
SO No. 3**

**Volume II : Cyclone Recovery Work Plan
SpIR 3.5**

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ACRONYMS

AUE	Association des Usagers de l'eau (Water Users Association)
AUP	Association des Usagers des Pistes (Road Users Association)
AGERAS	Appui à la Gestion Régionalisée et à l'Approche Spatiale
AGEX	Agence d'Exécution
ANAE	Association Nationale pour les Actions Environnementales
ANGAP	Association Nationale pour la Gestion des Aires Protégées
AQUALMA	Aquaculture de Mahajamba
ATS	Association Tefy Saina
BEST	Bureau d'Expertise Sociale et de Diffusion Technique
BRF	Bois Rameaux Fragmenté
BTM	Bankin'Ny Tantsaha Mpamokatra
BOA	Bank of Africa
CAF	Cellule d'Appui Forestier
CANFOR	Cantonement Forestier
CANFORET	Forest Service Cantonment
CAP	Commercial Agricultural Promotion
CDC	Comité de Développement Communal
CDD	Departmental Development Committee
CCEE	Centre Culturel pour l'Education à l'Environnement
CCV	Centres Culturels Villageois
CDIA	Centre de Diffusion pour l'Intensification Agricole
CE	Conservation Enterprises
CEIF	Conservation Enterprises Investment Funds
CEM	Caisse d'Epargne de Madagascar
CGS	Community Granary Storage
CIIFAD	Cornell International Institute for Food, Agriculture and Development
CIIFOR	Cornell International Institute for Forestry
CIM	Centre d'Interpretation de Moramanga
CIRAGRI	Circonscription de l'Agriculture
CIREL	Circonscription de l'Elevage
CIREF	Circonscription des Eaux et Forêts
CIRPECH	Circonscription de la Pêche et des Ressources Halieutiques
CITE	Centre d'Information Technique et Economique
CJPM	Comité Jean Pain Madagascar
CLB	Comité Local de Base
COFIL	Comité de Pilotage
CPSE	Comité de Planification et de Suivi & Evaluation
CPF	Counterpart Funds
COP	Chief of Party
CRD	Comité Régional de Développement
CTA	Cellule d'appui Technique (AGERAS)
DPV	Direction de la Protection des Végétaux
DIREF	Direction des Eaux et Forêts
EAM	Entreprendre à Madagascar
EASTA	Ecole d'Application des Sciences Techniques et Agricoles
ECOCERT	Entreprise de Certification Organique/biologique
EFE	Entreprises Favorables à l'environnement
EIA	Environmental Impact Assessment
EJ	Expert Junior
EP II	Environmental Program 2
ESSA	Ecole Supérieure des Sciences Agronomiques
ETN	Eco-Tourisme Nord
FENU	Fonds d'équipements des Nations Unies
FMG	Malagasy Francs
FCE	Fianarantsoa Cote Est Railroad
FID	Fonds d'intervention pour le Développement
FIEFE	Fonds d'investissement pour les entreprises favorables à l'environnement
FITIM	Filature et Tissage de Madagascar (Spinning and Weaving of Madagascar)
FOFIFA	Foibe Fikarohana ho amin'ny Fampandrosoana ny eny Ambanivohitra
GAIM	Groupement Agro-Industriel de Moramanga
GCRN	Gestion Communautaire des Ressources Naturelles
GCV	Greniers Communautaires Villageois (Community Grain Storage Facilities)
GELOSE	Gestion Locale Sécurisée
GIS	Geographic Information System
GPF	Gestion Participative des Forêts

GPS	Global Positioning System
GTDR	Grpoe de Travail pour le Développement Régional (PADR)
GR	Génir Rural
IPNR	Institut pour la Promotion Nationale de la Riziculture
IR	Intermediate Result
IRRI	International Rice Research Institute
ISC	Input Supply Centers
KH	Kolo Harena
LDI	Landscape Development Interventions
MARP	Méthode Accélérée de Recherche Participative
M&E	Monitoring & Evaluation
MEF	Ministère des Eaux et Forêts
MIRAY	Consortium PACT – Conservation International – WWF
MSC	Malagasy Seafood Company
NRM	Natural Resources Management
NGO	Non-Government Organization
ODAI	Opération de Développement Agricole Intégré
ODASE	Opération de Développement Agricole du Sud Est
ONE	Office National de l'Environnement
OTIV	Mutuelle d'Epargne et de Crédit
PACT	Private Agencies Collaborating Together
PCR	Plan de Communication Régional
PE1	Programme Environnemental #1
PDRAB	Projet de Développement Régional d'Ambato Boeni
PPIM	Programme Pilote Intégrée de Mahajanga
PLAE	Programme de Lutte Anti-Erosive
PMF	Participatory Forest Management
PNLCP	Programme National de Lutte Contre la Pauvreté
POLFOR	Politique Forestière
PRA	Participatory Rural Appraisal
PRB	Projet Rizicole de Betsiboka
RFPD	Regional Forestry Plan Director
RN	Route Nationale
RRA	Rapid Rural Appraisal
RS	Ressources Vertes
SAF/FJKM	Sampan'Asa Fampandrosoana de l'Eglise Protestante
SFR	Sécurisation Foncière Relative
SO3	Strategic Objective # 3
SR	Sub-Result
SRI/SRA	Système de riziculture Intensif/Système de riziculture amélioré
SZI	Strategic Zone of Intervention
WWF	World Wide Fund
YNC	Young Naturalist Clubs
ZSI	Zone(s) Stratégique(s) d'Intervention
ZIE	Ecotourism Investment Zones

1. Program Overview

1.1 Regular activities

The upcoming year, from July 2001 to June 2002, will be characterized by both, difficult challenges and exciting perspectives. On one hand, we will face severe constraints due to a lack of financial resources for LDI regular activities, while on the other hand, the cyclone recovery program will give us more opportunities to achieve concrete results and generate broader impacts. This special context has inspired the following considerations, which will serve as general guidelines to expand our activities and compensate the reduction of our regular budget by drawing from other sources of funding.

a) **This is a year of consolidation of LDI activities.** In other words, we must strive to strengthen our accomplishments, repeat and deepen our messages, reinforce farmer organizations at the local and regional levels, work closer with a selected group of efficient partners, and ensure the long-term viability of our achievements. We must focus more than ever on our core interventions and avoid to undertake new activities that we won't have time to successfully complete before the end of LDI. We must increasingly rely on Kolo Harena associations to reach more rural communities and build up their capacity to train other farmers and set up new associations.

b) **This is a year of reduced funding for LDI regular activities.** The Implementation Fund budget will remain the same (\$970,000), but because of existing commitments from last year, no new funds will be available unless current contracts or grant agreements are canceled. This will obviously limit the possibility for regional offices to initiate new activities and even, in some cases, to expand current interventions. This situation is the consequence of a high burning rate during the past months, which lead to remarkable results for last year, as shown in our 2000/2001 annual report. We must thus respect some principles to do our best under the present circumstances:

- Funds from the Cyclone Recovery Program (CRP) will help to compensate the drop of resources for LDI regular activities. This is perfectly in line with the spirit of our contract, which specifies that "the additional funds provided through this amendment will enable LDI to extend investments through Kolo Harena associations to repair and rehabilitate much needed agricultural infrastructure.... and popular agricultural intensification activities....". We will systematically seek to enhance productive synergies by combining activities under the CRP with other forms of technical, financial and material assistance provided by LDI to small farmers in damaged areas. In that prospect, some contracts of technical assistance to farmer associations that were previously financed through LDI Implementation Fund will be supported by the CRP, in regions that were hit by the cyclones.
- We will mobilize USAID and Japanese counterpart funds (FCV) as much as possible, to implement an ambitious program of infrastructure rehabilitation works in three regions, in spite of a tight schedule and cumbersome administrative regulations. In fact, the total amount of FCV budgeted for 2001/2002 represents \$400,000 and is three fold higher than last year. This special source of funds will allow us to rehabilitate roads and water supply systems in Isalo, Ankarana, Diego, Manakara and Mahajanga. In addition to specific objectives like building the necessary infrastructure for the development of "Ecotourism Investment Zones", those activities will contribute to revitalize the cash crop economy in the Manakara sub-region and to provide new income opportunities to local communities in the Isalo area.
- Because we must do more with less resources and given our approach that relies on Kolo Harena associations, we will lower the ratio of field agents assisting farmer associations and will train Kolo Harena



The CDIA of Beforona serves as our regional research, training and demonstration center

members to provide themselves extension and “socio-organisation” services. This approach will save money and will go beyond the usual farmer to farmer extension scheme, since it will also imply the multiplication of Kolo Harena associations.

- We will be more selective and demanding with our partners to get the most results for each dollar spent. After two years of field works, we know who are the best performers and what are the main pitfalls. We will take all necessary measures for them to better comply with agreed schedules and deliverables. We will also leverage existing FIEFE funds by seeking more equity participation from applicants and other potential investors, including FIARO.

- c) **This is the final year for the Mahajanga office.** We will close the office at the end of December 2001, but we will keep a presence and will pursue the most important activities by subcontracting to a NGO formed by members of the LDI staff in Mahajanga. We strongly feel that we cannot abruptly abandon farmer associations and federations recently constituted who still need continuous training and technical assistance. Also, some very promising initiatives deserve further support, such as the “cashew club” or the campaign aimed at encouraging urban dwellers in the region to shift from charcoal to natural gas. This is why we are seriously studying with the Mahajanga team the possibility to set up a NGO that will carry out activities funded through our usual subcontracts, with payments based on deliverables. Those activities will include for instance the management of the CDIA in Miadana, the follow up on contracts between private agribusinesses and Kolo Harena associations, and more generally will fall under the following categories: agricultural intensification, environmental education, community based natural resource management, conservation enterprise promotion and local capacity building. The new NGO will start to operate in January 2002 and will actively seek other sources of funding than LDI. This NGO will contribute to fill a gap caused by the lack of reliable partners committed to conservation and development interventions in the region.



LDI continues to channel technical advice and information to Kolo Harena associations on tanety rehabilitation based on diverse cash crops (coffee, ginger, cinnamon, cloves or pepper)

- d) **This year will create increasing opportunities for productive synergies between LDI, FCER and ReCAP.** As the two later projects will start to rehabilitate feeder roads and railway infrastructure, a much improved transport network will emerge, especially in the Fianarantsoa and the Fenerive areas, as a major factor of economic growth and biodiversity conservation at the regional level. LDI will build on those achievements, through appropriate technical, material and financial assistance, to revitalize the cash crop economy and attract local populations to coastal areas, creating thus better conditions to reduce pressures on forest corridors. One key issue will be the privatization of FCE, which is under LDI's responsibility and must be completed by December 2002. Moreover, our studies have clearly shown that the port of Manakara must be rehabilitated at least to a level comparable to the situation during the 1980/1990 period, and the “mise en concession” of both, the port and the railway, must be jointly implemented. The successful completion of this “mise en concession” is critical to raising additional financing for FCE rehabilitation and ensuring a profitable management of the port. Overcoming this challenge will be a high priority on LDI work plan, since the railroad and the port constitute the backbone of the Fianarantsoa transport network.
- e) **This year, LDI will closely work with “the Madagascar Green Healthy Communities Project” funded by the Packard Foundation.** LDI teamed up with JSI and Voahary Salama to design this new project and submit a proposal to the Packard Foundation. This project will promote integrated population/health and environment activities, mainly in LDI's zones of intervention, and will contribute to control population growth, while helping farmers manage their natural resources in a more sustainable manner. Activities will be oriented towards four objectives: i) increasing use of modern contraception; ii) improving natural resource management; iii) increasing of farmer's income and food security; and iv) improving the population's health status. “Overall, the expected result is measurable improvements of the living conditions of the communities, reduction of population pressures and preservation of biodiversity. We are pleased to initiate this project which is perfectly in line with the basic assumptions of LDI. We said in our first work plan that “over the long term, a more conducive legal, institutional and regulatory framework must be set up, the pace of rural development

must be considerably accelerated, and a more dynamic demographic policy must be carried out to induce a progressive reduction of population growth.» At the local level, Kolo Harena associations and LDI partners will take advantage of this new source of funding which will amount to \$2 million over the next 4 years, with about \$800,000 budgeted for the first year.

In summary, farmer associations, who are the ultimate beneficiaries and the main interlocutors of LDI, should receive more technical and material assistance than last year, through the combined sources of funding mentioned above.

1.2 The Cyclone Recovery Program

The Cyclone Recovery Program (CRP) will continue to move ahead rapidly and to generate strong impacts in the Fianarantsoa and Moramanga regions. We will reach all targets before the end of CRP and in some cases we will achieve results beyond contractual indicators. We were able to initiate our work swiftly and efficiently, since LDI teams were already in the field and had identified rural infrastructures severely damaged by cyclones Eline and Gloria in our zones of intervention. All irrigation system rehabilitation works for tranches I and II have already been identified, most studies were carried out and limited tenders will be launched in the upcoming weeks. Almost all works for both tranches will be completed before the end of this calendar year.



Agricultural input supply centers (here in Antanandava) as a key element for agricultural intensification

We always try to select irrigation systems whose rehabilitation costs are quite low, around \$150/ha, on average. This amount represents less than 25% of rehabilitation costs usually considered as normal by donors such as the World Bank or the European Union. We also pay a special attention to linkages with upward watershed protection and to setting up the appropriate organizations and procedures for ensuring long term maintenance of rehabilitated infrastructure.

We requested a contract modification to change two targets related to the cyclone recovery agricultural activities, in response to the changing needs of farmers, which was identified by the LDI field team in the first phase of implementation. We proposed to decrease the number of short-cycle seeds distributed to only 327 tons. The monies from the savings on short-cycle seed distribution will be reallocated to increase the number of hectares of irrigated systems rehabilitated, to expand the mini-grants program, and to complete the rehabilitation of the CAP roads in the Fianarantsoa region, as shown in the following table:

Indicator	Targets as of January 2001	Proposed Targets
Number of hectares of irrigated systems rehabilitated	5,174 hectares	5,732 hectares
Number of tons of short-cycle seeds distributed to farmers	520 tons	327 tons
Number of kilometers of road stabilized and rehabilitated	156 kilometers	156 kilometers
Number of farmer associations assisted	216	216
Number of beneficiary families	3100	3100

The following table gives a good summary of our accomplishments under the Cyclone Recovery Program:

Activities	Targets	Tranche I		Tranche II		Total
		Accomplishments to date	projected accomplishments for 2001/2002	Accomplishments to date	projected accomplishments for 2001/2002	
Rehabilitation of productive infrastructure and systems						
Irrigation infrastructure rehabilitation	5732 Ha	1559 Ha	995 Ha	80 Ha	3098 Ha	5732 ha
Construction of agricultural supply center and village granaries	13	5	4	0	4	13
Seed distribution	327 tons	204.878 tons	0 ton	62.339 tons	62.2 tons	329.417 tons
Community -based FCE	85 families	95 families		55 families	0	150 families

rehabilitation						
Disaster preparedness and response planning	24 communes	3	7 communes	16 communes	14 communes	40 communes
Road repair and stabilization work on cyclone damaged roads						
CAP roads	156 km	10 km, 1 ferry	146 Km			156 Km, 1 ferry
Other rural roads		1 causeway		790 m		790 m, 1 causeway

1.3 Strategic Challenges for Year 4

1.3.1 Regular activities

Our fundamental challenges have not changed, but the LDI team will also have to overcome new obstacles, as described in the first paragraphs of this overview:

Technical challenges:

- **Strengthen Kolo Harena associations by providing the necessary technical, material, and financial support that will help them become fully operational, environmentally conscious, and financially viable at the end of LDI.** Our targets for next year will be to reach a total of 500 associations with more than 12,000 members. We will also strive to better integrate Kolo Harena federations in local institutional structures such as "Comités Communaux de Développement" or GTDR, in order to ensure strong linkages between development activities and sustainable management of natural resources. We will also continue to promote and support the development of productive relationships between Kolo Harena and eco-enterprises.
- **Generate large-scale impacts with limited resources.** To achieve this goal, we must first help create and train new Kolo Harena associations with less intensive assistance and fewer resources, at the local and regional levels. We will ask more results from our partners and will leverage funds from other donors and projects. We will increasingly rely on a farmer-to-farmer approach for extension services and will count on Kolo Harena themselves to manage their "agricultural supply input centers". Finally, we will enhance our communication component to disseminate our messages to a larger public and involve more stakeholders at all levels.
- **Carefully select the best partners among NGOs and private enterprises, and help them improve their managerial and technical skills.** More than ever, it becomes crucial that our partners respect their commitments and perform as expected. We must help them strengthen their skills, diversify their sources of funding and become real experts in their respective areas of competence.
- **Successfully help the Mahajanga team launch the NGO that will pursue LDI activities in the region.** Since the CAP project, the Chemonics team in Mahajanga has acquired a vast expertise in the conservation and development fields, and has developed an excellent organization that will enable them to be a very



The Androtra watershed, stretching from the Ankarafantsika forest reserve to the Marovoay Plain, is subject to serious soil erosion, graphically illustrated by a series of gigantic lavaka or ravines at the upper end. LDI and local partners will be using a combination of plant-cover and physical barriers to combat the erosion of sand from the lavaka to the rice fields in the plain below. Two lavaka will be stabilized through works funded by the FCV

efficient and effective partner of LDI in all three regions. Setting up this NGO is the best way to ensure continuity in our interventions, to empower the Malagasy staff and to take advantage of the unique skills of the Mahajanga team. This new experience will certainly bring meaningful findings that will be useful, at the end of LDI, to transfer management responsibilities to Malagasy staff and contribute to the long-term sustainability of our actions.

- **Ensure a timely implementation and respect high quality standards for infrastructure works financed through FCV.** LDI will face three types of problems: i) we must tightly coordinate and monitor the studies and execution of infrastructure rehabilitation works that are scattered across the country, from Antsiranana to Isalo. This will put a heavy burden on the Antananarivo staff and implies an excellent cooperation with the Ministries of Environment, Plan and Finances; ii) we must go through a cumbersome administrative process and have all contracts signed by the end of August 2001; iii) we must set up a serious control system mostly funded through LDI regular budget, in spite of our financial constraints.

Financial challenges

- **Tightly manage LDI funds, under our regular budget.** Next year expenses will be based on a budget of \$3.38 million, as it appears in our contract, with \$970,000 allocated to the "Implementation Fund". As we have already signed contracts and grant agreements for amounts exceeding this figure, regional offices won't be allowed to sign new contracts unless they cancel their current commitments and reallocate available funds. The FIEFE will be managed from the Antananarivo office, but will be severely cut back, as shown in the following breakdown:

Region	Amount in \$
Antananarivo	
- EFE promotion	\$25,308
- FIEFE	\$152,440
- Communication et environmental education	\$15,000
- Reinforcement of partner capacity	\$38,484
Antsiranana	\$38,139
Fianarantsoa	\$305,000
Mahajanga	\$111,695
Moramanga	\$283,934
Total	\$970,000

- **Mobilize and wisely use additional funding from FCV to expand our activities.** Our FCV funded interventions will have a special importance this year and will be affected to rehabilitation works that will provide the necessary infrastructure for our regular activities to take their full effect, especially in the case of ecotourism development:

List of Work under FCV USAID Funding

N°	Faritany	Objective	Amount Fmg HT	Starting Date	Engineer in Control	Duration
1	DIEGO	Establishment of APD and DAO for work on gravity flow water system	44,670,000	July 20, 2001	LDI	Thirty (30) days
2	DIEGO	Establishment of APD and DAO for work on trail rehabilitation	44,627,000	July 20, 2001	LDI	Forty-five (45) days
Subtotal Studies and Research			89,297,000			
4	DIEGO	Rehabilitation of gravity flow water system in Ankarana	298,491,235	August 24, 2001	Etudes et Conseils Plus	Ninety (90) days
5	DIEGO	Rehabilitation of gravity flow water system in Joffreville	295,156,770	August 30, 2001	Etudes et Conseils Plus	One hundred five (105) days
Subtotal Work (gravity flow water system) / DIEGO			593,648,005			
10	DIEGO	Management and overseeing construction of gravity flow water system in Ankarana	44,749,000	August 30, 2001	LDI	Four (04) months
11	DIEGO	Management and overseeing construction of gravity flow water system in Joffreville	44,116,000	August 30, 2001	LDI	Three (03) months
Subtotal Management and Overseeing / DIEGO			88,865,000			

3	MAHAJANGA	Work related to the stabilization of two (02) lavakas in Androtra	101,751,521	July 30, 2001	EEDR Mamokatra (IF)	Forty-five (45) days
7	MAHAJANGA	Work related to biological protection of two lavakas in Androtra – Ankarafantsika	184,500,000	August 30, 2001	E.E.D.R Mamokatra (IF)	2.5 months
8	MAHAJANGA	Work on the rehabilitation of the trail linking RN 4 and Bekobay	177,795,500	August 30, 2001	E.E.D.R Mamokatra (IF)	Seventy-five (75) days
Subtotal Work / Mahajanga			464,047,021			
6	FIANARANTSO A	Rehabilitation of the trail Faraony - Nihaonana	262,620,850	August 30, 2001	Andriambola	Ninety (90) days
6	FIANARANTSO A	AVENANT	50,000,000			
12	FIANARANTSO A	Rehabilitation of the trail loop that circles the ecotourism zone of Isalo	324,641,750	August 30, 2001	E.E.D.R Mamokatra	Three (03) months
	FIANARANTSO A	Rehabilitation of the bridge at Miarinarivo	346,947,774			
Subtotal Work (roads) / Fianarantsoa			984,210,374			
9	FIANARANTSO A	Management and overseeing rehabilitation of the trail Faraony-Nihaonana to Manakara	29,992,600	August 30, 2001	LDI	Ninety (90) days
13	FIANARANTSO A	Management and Overseeing of rehabilitation of the trail loop that circles the ecotourism zone of Isalo	49,940,000	August 30, 2001	LDI	Three (03) months
Subtotal Management and Overseeing / FIANARANTSOA			79,932,600			
Grand Total in FMG			2,300,000,000			

1.3.2 Cyclone Recovery Program

- **Complete all our interventions by August 2002 for Tranche I and November 2002 for Tranche II, as foreseen in our contract, while paying special attention to the quality of our works and setting up good systems of maintenance.**
- **Promote active participation and concrete contributions from beneficiary groups, local governments and provincial authorities.**
- **Maximize synergies between LDI regular activities and the cyclone recovery program, so that local communities in ZSI can draw long term benefits from LDI's combined interventions.**

Through LDI regular budget, FCV and the cyclone recovery program, we will be able to considerably increase amounts spent in infrastructure works and to meet our goal of 50% of investment funds directly reaching farmer associations. This last point is very important and must be considered as a critical factor of poverty alleviation as well as a key element of sustainable rural development. We mean by "funds directly reaching farmer associations" amounts spent in micro-credit or rural infrastructures, such as roads, irrigation systems or "agricultural input supply centers". In summary, LDI's combined interventions will reach a peak in 2001/2002 and will be funded as follows. We would like to highlight the fact that the sum of credit activities, direct material support and the cyclone recovery programs will represent about 64% of all investment funds. This is an excellent ratio which means that most resources will reach farmers and will remain with them to establish solid foundations for sustainable development. This year, we will reach more than 9000 beneficiaries through our technical assistance and our infrastructure rehabilitation programs.

1.4 Budget

SUMMARY INTERVENTION FUND BUDGET Year 4 July 2001- June 2002

ACTIVITIES		BUDGET CATEGORIES													
		REGULAR BUDGET					USAID FCV			Japanese FCV			CYCLON PROGRAM 1st TRANCHE	CYCLON PROGRAM 2nd TRANCHE	TOTAL
		Technical Assistanc e	Credit	Direct Material support	Resear ch	Total	Technical Assistanc e	Direct Material Support	Total	Technical Assistanc e	Direct Material Support	Total			
	Agricultural intensification	\$206,864	\$40,378	\$28,658	\$28,822	\$304,722	\$0	\$0		\$0	\$0		\$0	\$0	\$304,722
	Community Mgmt of Nat Resources	\$62,106	\$0	\$8,380	\$0	\$70,486	\$0	\$0		\$0	\$0		\$0	\$0	\$70,486
	Environmental Education	\$31,362	\$0	\$15,277	\$0	\$46,639	\$0	\$0		\$0	\$0		\$0	\$0	\$46,639
	EFE Promotion	\$116,908	\$170,805	\$17,898	\$0	\$305,611	\$0	\$0		\$0	\$0		\$0	\$0	\$305,611
	Reinforcement of partner capacity	\$223,205	\$0	\$694	\$0	\$223,899	\$0	\$0		\$0	\$0		\$0	\$0	\$223,899
	CE Railroad	\$9,232	\$0	\$0	\$0	\$9,232	\$0	\$0		\$0	\$0		\$0	\$0	\$9,232
	Road Construction	\$0	\$0	\$0	\$0		\$19,771	\$184,445	\$204,217	\$0	\$55,556	\$55,556	\$52,215	\$0	\$311,987
	Irrigation infrastructures Dams	\$0	\$0	\$0	\$0		\$0	\$0		\$0	\$0		\$84,458	\$430,525	\$514,983
	Other infrastructures	\$9,411	\$0	\$0	\$0	\$9,411	\$21,196	\$139,667	\$160,863	\$0	\$0		\$0	\$0	\$170,274
	Seeds	\$0	\$0	\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$22,658	\$22,658
	Ag Supply Center and Granary	\$0	\$0	\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$28,571	\$28,571
	Mini grants to communes	\$0	\$0	\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$80,000	\$80,000
	Appui Technique	\$0	\$0	\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$56,135	\$56,135
	CE Community work	\$0	\$0	\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0	\$0
	Radio	\$0	\$0	\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0	\$0
TOTAL		\$659,088	\$211,183	\$70,907	\$28,822	\$970,000	\$40,967	\$324,112	\$365,079	\$0	\$55,556	\$55,556	\$136,673	\$617,889	\$2,145,197

SUMMARY by region INTERVENTION FUND BUDGET Year 4 July 2001- June 2002

		BUDGET CATEGORIES					
		REGULAR BUDGET	USAID FCV	Japanese FCV	CYCLON PROGRAM 1st TRANCHE (1)	CYCLON PROGRAM 2nd TRANCHE (2)	TOTAL
REGIONS	TANA	\$231,232	\$0	\$0	\$0	\$0	\$231,232
	DIEGO	\$38,139	\$122,510	\$0	\$0	\$0	\$160,649
	MAJUNGA	\$111,695	\$73,658	\$0	\$0	\$0	\$185,353
	MORAMANGA	\$283,934	\$0	\$0	\$84,458	\$428,021	\$796,413
	FIANARANTSOA	\$305,000	\$168,912	\$55,556	\$52,215	\$189,868	\$771,550
	TOTAL	\$970,000	\$365,079	\$55,556	\$136,673	\$617,889	\$2,145,197

(1) : the expected budget only concerns new commitments for Year 4, and does not hold over money left to be paid on commitments for Year 3

(2) : the expected budget only concerns new commitments for Year 4, and does not hold over money left to be paid on commitments for Year 3

1.5 Summary of LDI 2001-2002 targets

Summary of LDI 2001-2002 targets are shown in the table below:

Indicators 2001-2002	LDI Quantified Objectives	Notes on the Indicator
Activity Level		
Agricultural Intensification <ul style="list-style-type: none"> - increase in production - increase in revenue - allocate credit 	<ul style="list-style-type: none"> - 10-20% - 10-20% - \$120,759 of which 40,378 are new. 	The increase in production and revenue is based on figures collected in the "cahiers de ménages". The credit indicator is divided between rural credit (\$61,571) and the agricultural input supply centers (\$59,188). The total here corresponds to the total amount of credit granted to Kolo Harena members
Environmental Education <ul style="list-style-type: none"> - carry out EE&C activities which target the Kolo Harena - carry out evaluations of the activities 	<ul style="list-style-type: none"> - 6 activities - 1 evaluation per ZSI 	These activities are posters which accompany the technical activities of LDI (sustainable ginger cultivation, GCF, fishculture, beekeeping) and the publication of six issues of the "Kolo Harena Gazette"
Community Management of Natural Resources <ul style="list-style-type: none"> - number of contracts drawn up - number of villages concerned in the community conservation - number of villages concerned in the sustainable use of natural resources - implemented of signed contracts 	<ul style="list-style-type: none"> - 5 contracts - 60 villages - 340 villages - 5 contracts 	The contracts primarily concern the transfer of forest management (for the three regions) and the wetlands of Lake Alaotra.
Promotion of EFE <ul style="list-style-type: none"> - number of EFE supported by LDI - total investments by supported EFE - expenditure of FIEFE funds - establishment of commercial relations between EFE and Kolo Harena 	<ul style="list-style-type: none"> - 60 EFE - \$360,000 - \$152,440 - 2,260 farmers 	<p>The number of EFE supported by LDI is cumulative. LDI will continue to support existing EFE</p> <p>FIEFE disbursement represents 80% of the amount in the application</p>
Capacity Building <ul style="list-style-type: none"> - Create Kolo Harena associations - Work with members of Kolo Harena associations - establish a system of farmer-to-farmer educators - Number of Federations of Kolo Harena associations reinforced with capacity-building activities 	<ul style="list-style-type: none"> - 500 associations - 12,000 members - 140 animateurs villageois - 11 experts juniors 	<p>These 3 indicators are cumulative. On regular fund, we will reach 7,400 farmers with 460 associations.</p> <p>To assure the sustainability of activities, the animateurs villageois are selected by the KH members and will be trained by LDI to do technical extension for the other members. 11 experts juniors will be assigned to the Kolo Harena federations. Federations are operational in Agricultural input supply centers management and other socio-organization related activities</p>
Sub-level Outcomes		
Reduce the expansion of agricultural land in the priority ecosystems <ul style="list-style-type: none"> - monitor the evolution of pressures in the ZSI 	4 pilot sites: Andohanisoa, Ranomena, Ambalavero and Belalitra	This first step is to establish the methodology and procedures for monitoring tavy before later monitoring multiple activities throughout the ZSI.
Increase incentives for sustainable use of natural resource <ul style="list-style-type: none"> - inventory EFE transgressions in the LDI regions - evolution of turnover of the supported EFE - Number of created job opportunities 		There were no quantifiable objectives given that show the results of LDI support in promoting the EFE. Those are EFE that came into existence without the support of LDI.
Reinforce the capacity of Kolo Harenas to undertake sustainable practices <ul style="list-style-type: none"> - number of people using the technique package - number of Kolo Harena members who participate in conservation and development activities 	<ul style="list-style-type: none"> - 50% - 20% 	The associations which have their work plan participate in activities and follow-up evaluation of plans and participate in training which cover the themes.

<u>Intermediate Results</u>		
Sustainable Use of Natural Resources <ul style="list-style-type: none"> - incidence of tavy - incidence of fire - incidence of charcoal production 		These objectives have not been quantified, but the outcome will be noted when the study is complete.

2. LDI Regular Activities

This year is marked by the consolidation and reinforcement of experiences for LDI. With regard to the focus target of LDI, the Kolo Harena associations, several coherent and detailed interventions are being carried out to assure the sustainability of actions and the viability of a system of development and conservation at the level of the Kolo Harena:

- **Sustained supervision in the realm of community organization in all the associations:** the ratio of supervision is actually 23 Kolo Harena associations for one *socio-organisateur*. The results are that the Kolo Harena, now with the emergence of the Kolo Harena federations which number 14 in the 3 regions, have detailed annual work plans and budgets.
- **Farmer-to-farmer approach:** LDI has targeted, with the participation of the Kolo Harena, active members who will be trained on specific technical themes and who will then duplicate the theoretical and practical experiences of the training for the other members. These farmer extensionists will be remunerated in goods or money by the beneficiaries themselves. The LDI agents will carry out monitoring of the information transfer between the farmer extensionists and the Kolo Harena members.
- **Exchange visits between farmers:** This year, LDI has focused on this aim and organized exchange visits between the Kolo Harena within a region as well as between two different regions. The goal of this activity is to reinforce the technical and organizational expertise of the farmers and enrich them by exposing them to other farmers' experiences in increasing agricultural production and revenue. The dissemination of the **Kolo Harena Gazette** reinforces these beneficial exchanges between Kolo Harena members.
- **Make experts juniors available:** LDI has made *expert junior* available to give Kolo Harena federations the capacity to negotiate with financial, technical and commercial institutions.
- **Put economic projects in place:** To assure the viability of the associations, based on CAP's experiences, LDI has placed the management and running of the agricultural input supply centers in the hands of the Kolo Harena. From the Kolo Harena federations, members of the management committees for the agricultural input supply centers are motivated to talk to input suppliers and credit institutions in order to continually benefit from financial (credit) and material (inputs) support, which is LDI's goal in assuring the sustainability of these services after the end of the project. The same system is in place for managing and running the rural radio in Beforona. The startup funds paved the way for the success of the agricultural input supply centers (interested in sales) and the rural radio in Beforona was placed under the guidance of OTIV to prepare a valid financial foundation for the take over after LDI.
- **Put a marketing plan and guide manual in place for the Kolo Harena:** these actions primarily serve to multiply the impact of development and conservation activities on a larger scale. The details can be found in sections 2.2 and 2.3.

2.1 Agricultural Intensification

2.1.1 Lessons learned

In response to requests by farmers, and because new intervention zones were created, LDI works with more than 10,200 members belonging to 440 Kolo Harena. Kolo Harena associations established commercial relations with the private sector following meetings in each of the three regions, and are working to fulfill their contracts. LDI will offer technical support to help Kolo Harena offer the best quality of production at the best price

2.1.2 Strategic challenges

- Use the knowledge gained over the past years to build strong Kolo Harena Federations capable of managing the activities begun by the program, and effectively representing their membership to partners and administrative institutions.
- Guarantee that Kolo Harena associations are knowledgeable enough about improved techniques to continue applying them despite the gradual decrease of support. Consolidate and encourage lateral circulation of technical knowledge among Kolo Harena.



Kolo Harena members promote farmer-to-farmer experiences exchange to insure sustainability of conservation and development practices

- Increase micro-credit and supply center management support to Kolo Harena Federations, allowing them to work more efficiently with partner institutions.

In the **credit** sector, there was a decision to create the following strategic axis to guide future activities:

- Credit activities will be concentrated in the zones where LDI has already intervened with micro-credit and agricultural input supply centers
- LDI will work exclusively with partners showing the best performance and will terminate accords with those who do not perform satisfactorily
- Concerning sustainability of actions, LDI will aid the Kolo Harena federations in becoming capable of taking over their responsibilities after the end of the program. The *experts juniors* will be there to directly reinforce the capacity of the Kolo Harena federations to well manage micro-credit and the agricultural input supply centers.
- The organization of work between those responsible for credit and the *experts juniors*, thus their relationship with people in charge of the program's other sectors, will be improved.

a) **Micro-credit**

The actions will be required to conform to the following directives:

- Shorten the institutional delays and speed the release of credit, in collaboration with the partners
- Clarify the responsibilities of the various participants in the micro-credit sector (LDI, partners, federations...) so that each party fully understands his or her role
- Increase the range of products offered to the Kolo Harena

b) **Agricultural Input Supply Centers**

At the level of the agricultural input supply centers, the strategies that have been adopted are as follows:

- Support the Kolo Harena federations so that they are well prepared to take over the centers after the end of the program.
- Assure a better concurrence between needs and products that are offered

c) **Expected results**

The expected results for the 2001/2002 campaign will have repercussions on three levels

- At the Kolo Harena level, a greater participation in management activities and a taking of responsibility throughout the leadership of the federations. The objective of this will be the sustainability of actions;
- At the level of the technicians, better organizational efficiency will result in improved results;
- At the level of results, a significant increase in indicators.

2.1.3 **Targets for 2001-2002**

- LDI will work with 500 Kolo Harena with 12,000 members. Support capacity building for 14 Kolo Harena Federations.
- At least 20% of members will adopt improved techniques, while 50% will be using them.
- Members using improved techniques will see revenue increased by a minimum of 10% and yield by a minimum of 10%.
- Allocate \$120,759 in credit, of which \$40,378 will be new.

Regions	Micro credit		Input supply center		Total	
	Total amount	LDI New disbursement	Total amount	LDI New disbursement	Total amount	LDI New disbursement
Fianarantsoa	24,021	15,880	19,407	5,000	43,428	20,880
Moramanga	32,730	17,545	36,551	0	69,281	17,545
Mahajanga	4,820	1,953	3,230	0	8,050	1,953
Total	61,571	35,378	59,188	5,000	120,759	40,378

2.2 Community management of natural resources

2.2.1 Lessons learned over the past year

The much-use Gelose transfer method has gradually given way to contractual participative forest management. The term Gelose is familiar even in rural communes. The creation of communautés de base took some time; the state technical service lost its bearings during the relatively recent legal and legislative changes that have taken place and the introduction of any other new local resources management method is seen as a challenge.

The forestry services are working on a technical guide to management transfer which it is hoped will guarantee sustainable resource management. It will also serve to build capacity for 'training' partners. This will make the process more uniform and less cumbersome. A follow-up and evaluation system is also being prepared.

Kolo Harena associations representing 107 members and responsible for the management of 1739 ha of forest are now fulfilling the four management contracts signed in the Mahajanga region. Members have given up charcoal production in favor of farming. It should be noted that the participation of the forestry service has been exemplary.

In Fianarantsoa, the first contract established places an enormous forest lot - 1500 ha - in the hands of a communauté de base which, with 800 members, represents practically the entire fokontany.

This year, Moramanga will finalize a number of contracts similar in approach to that in Fianarantsoa.

2.2.2 Strategic challenges

- Engage government agencies at the central, regional and local levels in the transfer process.
- Promote successful local management of natural resources by training and involving the local population in every stage of the process.

2.2.3 Targets for 2001-2002

- Complete and sign 5 participatory forest management contracts. Three will be signed in August in Alaotra and 2 others in Fianarantsoa before the end of this year.
- Continue to process 5 other wetland and rainforest management transfer contracts.
- Support and train the local population executing the 5 contracts signed last year.

Please note that the Eaux et Forêts forestry service bases its annual goals on those of such partners as LDI and the WWF.

These indicators will be completed by the fulfillment of the criteria and the sustainable management of natural resources, in the occurrence of:

- * the existence of an exploitation and management plan at the level of community resource management (community grassroots)
- * the state of the notebook which follows all of the effected aspects of the resource in question and the evolution of its state (the structure and texture of the resources).
- * the technicians' monitoring and inspection visits

The forestry technical assistants (experts juniors) will be in direct contact with the grassroots communities and the regional forestry services to assure good management of the resources.

In the case of Mahajanga, the monitoring system for the GCF will be assured by the LDI Mahajanga staff (field agents and those in charge of the GCRN), as well as by the NGO GREEN, which is made up of LDI agents.

Until November of this year, LDI is collaborating with engineering students who are preparing their training memoir on the theme "Transfer of Management GCF". The researchers have enabled us to enrich our experiences in the realm of transfer of natural resource management.

2.3 Environmental education and communication

2.3.1 Lessons learned over the past year

LDI employed a number of different education and communication tools: posters, film, newsletters, pamphlets, puppets, the press. A number of educational activities, such as reforestation of cash crops were organized as well, each with its own target, such as Kolo Harena, or students and their parents.

LDI also produced the **Gazety Kolo Harena** with the help of Kolo Harena associations. Printed in Malagasy, it is designed to promote sustainable practices that respect the environment between Kolo Harena members. Radio Akon' Ambanivolo in Beforona contributed to the spread of LDI's environmental messages.

In short, various environmental education and communication activities were carried out, but much remains still to be done if target groups are going to change their behavior to focus on sustainable methods and the protection of the environment.

2.3.2 Strategic challenges

- Make Kolo Harena more popular at all levels through development and durability.
 - Local level: existing KH will have a good image with non-members within the ZSIs, which is an incentive to join.
 - Regional level: regional authorities, the private sector and various NGOs will recognize KH associations as credible and valuable partners.
 - National level: KH associations will be recognized as a model in the fight against poverty and the protection of the environment.
- Using a number of tools (radio, posters, film, puppets), spread messages likely to bring about behavioral changes among target groups concerning the environment, natural resources management, and agricultural intensification.



Kolo Harena stand during the Alaotra fair

2.3.3 Targets for 2001-2002

- Prioritize and apply environmental activities that target Kolo Harena in the various ZSIs and spread clear, simple messages.
- Publish the 6 Gazety Kolo Harena editions and evaluate its impact on information exchange in target groups.
- Finalize and begin activities of the Kolo Harena marketing plan to introduce and promote the Kolo Harena at all levels in the hopes of increasing membership and assuring the sustainability of their associations. Produce posters on technical themes to serve as an extension tool and reinforce the technical experiences of the Kolo Harena (eco-friendly ginger cultivation, GCF, aquaculture, and beekeeping).
- Evaluate Kolo Harena behavior towards the environment.

2.4 Conservation enterprises

2.4.1 Support for EFE

- Encourage economic initiatives such as essential oils by supporting operators, either in groups (Pronabio) or individually (pilot distillation units in Fénérive Est), with direct donations of materials or the placement of *Experts Juniors*.
- Help market products (outside representation, quality certification, fairs, etc.) according to plans made following the South African business trip.
- Improve and solidify collaboration with partner aid organizations (FASP, PRIDE, etc.).
- Improve EFE-related collaboration with regional offices.
- Pursue the results of regional EFE-Kolo Harena meetings in order to establish durable and profitable relations between the two parties.

- Participate at commercial fairs and exhibitions to promote Malagasy products to the agri-business sector.

2.4.2 FIEFE

At first, financial establishments were slow to process applications. FIEFE is now operational, however, and has already successfully refinanced some loans (such as Phael Flor and Les Plantations de Mondésir).

2.4.3 Strategic Challenges:

- Meet greater demand by shortening the processing period.
- Prepare to shift fund management upon LDI's withdrawal.
- Find other funding sources.



LDI is promoting essential oil production by distillers and supporting Kolo Harena members to produce raw materials

2.4.4 Targets for 2001-2002

- Continue to support the 60 EFEs already collaborating with the program and prepare to support 10 new businesses.
- Strengthen FIEFE's selection process for new refunding requests, and continue to process applications already under review.
- The EFE will invest \$360,000 of which \$152,440 will come from FIEFE. This concerns projects already identified (Nature Lodge \$266,000 et Ranomanitra \$94,000). This expected amount is less than last year's amount because of budgetary restrictions as well as the level of technical support from FIEFE.
- 2262 farmers will have commercial relations with the EFE, which breaks down as 200 farmers in Fianarantsoa, 1720 in Moramanga and 342 in Mahajanga.

2.5 Capacity building

2.5.1 Experts Juniors program

Last year, this program has been very successful in terms of monitoring and supporting. In fact, SOATEG put in place a results evaluation system and the systematic production of activity reports were contractual conditions for payment.

This year, LDI wants to make the best possible use of this resource to promote EFEs, build long-term capacity among Kolo Harena, and professionalize NGOs and other partners offering structural support.

LDI intends to hire 10 *Experts Juniors*, to work with NGOs, and to train members from local organization (village animators) and in order to make LDI's activities long-term and durable.

2.5.2 Support to partners and NGOs

LDI continues to support NGOs and associations who work with Kolo Harena in development and conservation. LDI also expects to establish efficient coordination with actors in the fields of ecoregional planning (SAGE-AGERAS), rural development (PSDR), health (JSI and Voahary Salama), and environmental conservation (USAID SO3 Partners and EPII AGEX).

A list of LDI's partners can be found on the next page.

Summary of LDI Partners

Region	Antsiranana	Fianarantsoa	Mahajanga	Moramanga
Activities				
Agricultural intensification		ATS, FFF Malagasy Mahomby, Entreprendre à Madagascar, Bank of Africa, DPV, Association Marotia, GRP, CAF, ATEI, CIRPH, FIFAMANOR, CIRAGRI, EASTA, CIREL, ONG Aide, ONG MIRAY, FOFIFA, ESSA, Pépinière de la Mania, Service phytopharmacie, CMS Nanisana, Cabinet R-Conseil, SNGF, Association Fanarenana, ONG Soafaniry, Cabinet ECR, Association ATEI, Cabinet Tambahra, Bureau d'études Mikajy, Entreprise Hanitra, Entreprise Rakotozandry, ONG Miray Mahefa, MEC TIAVO, ONG Lalana	ANGAP, DIREF, Communes, SOATEG, DIRAGRI, MIRAY, ANAE, DIRENV, AGERAS, PRB, PLAE, ODAI, CDD Tambabe, OCIM, ONG Lalana, IPNR, SAF/FJKM, AHT, FIFABE, FID, Japanese Embassy, Entreprendre à Madagascar, Génie rural Port Bergé, AVOTRA ODAI, FENU, Private Veterinarian, MINEL, Service phytopharmacie, FOFIFA, Entreprise SORATA, SNGF, Cabinet R-Conseil, ONG Lalana	CIRAGRI, Association Marotia, Association NOPRI, CIRPV, ESSA, CU Bevalala, Office Engineering, EEDR Mamokatra, Orintsoa, MacDo, BEMA, CIREL, CIRPH, OTIV, ONG Voahary Soa, ATS, EGAT/Office engineering, CDIA, MacDo, CIREL, AROM, OTIV, MADRIGAL, ONG Tanimaitso, Ramilamina, CMS Anosiboribory et Nanisana, Service phytopharmacie, SNGF, Cabinet R-Conseil, EGECA, Entreprise Ramarojaona, BRL, ERASTMA, ONG AKAMA, PAECC/MPE, ONG FANAMBY, PAEA, ONG Lalana, CRS
Community based natural resource management		CIREF, Cellule GELOSE, CAF, CDC, EASTA, Communes, ONG Soafihassina, CORANIR, RTM, Groupe d'accompagnement, Cabinet TJTT, Hanta Rabetaliana, Jacquot Randrianasolo, MinE&F	CANFORET, Communes, BEST, PACT, CLB, SOATEG, Cabinet TJTT, MinE&F	CIREF, TOPO, Domaine, Local authorities, DURELL, Cabinet TJTT, MinE&F
Environmental education and communication	WWF MIRAY	MICET, Mass media, artists, editors, producers, FCE, ADIFCE, AGEX PEII, CJPM, Suisse, SOCOFIMA, Vaniala, MYE, AGECO, GATT	CCCE, Vaniala, MYE, PACT Lova, DODWELL TRUST	CISCO, Local school, Coopération Suisse, IPI/ECHO, CSP, BEMA, SAF/CMS, AZISPAM, CDIA, CIM, Radio Akon'Ambanivolo, Mediascope, BEST, SAF/FJKM, MEF, Phelps Dodge Madagascar, SOATEG, MYE, Vaniala, CITE, ONG Fanamby
Conservation enterprises promotion	A18 Architecture, AUE, GTZ, Ministère du Tourisme, ETN, Association Ankarana Mandroso, ADA, AFED, ANGAP, Cabinet Performance, CREATA, Managing, Mahery Conseils, Cabinet Jary	ECODEV, RINDRA, DELC Madagascar, RIRA, Associations des Usagers des pistes, Cabinet Jary, Cabinet MiaraMita, Cabinet Prosper, Aquaterre, Cabinet HB, Fivoarana Consulting, ONG Haoña Soa, Abraham Elison, Cabinet R Conseil, Razafiarison René, Delta Informatique, Directions Inter Régionales: Tourisme, Commerce, Domaines-Topo, ECOCERT, Qualité France, Peter Schachenman, Ozolins, Cabinet JARY	ONG Mikajy, Entreprendre à Madagascar, ANGAP, BCPA, Cabinet MCS, Cabinet EDEN, Cabinet JARY, Multiservice, ECR, CRS, Grand Angle, Rconseil, Ministère de la Culture, GLW Conseil	(Qualité France), Herb research Foundation, private sectors, Federation Kolo Harena, CENAM, CI Zahamena, Cabinet ADAPT, Domaine de Mondésir
Capacity building		CIREF, CMP, AGERAS, ANGAP, ONG Lalana, US Embassy, Cabinet Fivoarana, MINENV, MINTOURISM, WWF, DIREF, CJPM, Intercoopération Suisse, SOATEG, BEST, JSI, ECHO/VS, FISA	Herb Research Foundation, CARE/PAPAT, FOFIFA, AQUALMA, All partners, MINEL, Brahman Cattle Breeders'Society of South Africa, BEST, PACT, EAM, Génie Rural Port Bergé, SOATEG	BEST, CORDAL, JSI, Echo/Voahary Salama, ONG Ramilamina, FISA

JSI and Voahary Salama

Within the framework of funding from the Packard Foundation, LDI collaborated this year with JSI and Voahary Salama to develop population environment activities within JSI and LDI's intervention zones. In keeping with the Packard proposal, LDI, JSI, and the President of Voahary Salama will submit a work plan to the Packard Foundation for approval by mid-year 2001 before first year funds can be released in October 2001.

ANGAP

In Fianarantsoa, LDI collaborates with ANGAP to promote crawfish production techniques at the Ampamaherana forest station. Among other things, ANGAP and LDI provided an *Expert Junior* to increase the Isalo development committee's capacity to promote development activities in the areas around Isalo National Park.

In Mahajanga, LDI worked with ANGAP to stabilize 2 lavaka at Androtra. This will test silting prevention techniques for rice farms around the reserve.

SAGE/ONE

In Fianarantsoa, LDI, SAGE/ONE and other partners in the region collaborated closely, using participative methods to establish a communal and coherent ecoregional vision for the Ranomafana-Andringitra forest corridor. Similarly, LDI is working with partners in Mahajanga and Moramanga to develop ecoregional plans.

PACT Madagascar

LDI continues to work with Pact Madagascar to evaluate tavy use within pilot ZSIs and to develop a pressure evaluation procedure manual. Pact is also helping produce maps that show the progress of LDI activities.

2.6 Budget and Intervention Fund

2.6.1 Lessons learned during 2000-2001

- Most subcontractors do not respect production of deliverable schedules;
- Given the volume of activities, follow-ups, and periodic IF evaluation, a computerized system is needed;
- Monthly visits to regional offices are very useful for both the IF unit and the regional offices; they make support available to the regional administrative and financial responsible, and allow us to verify conformity to norms and procedures, and, when necessary, to make corrections;
- The responsibilities of the IF unit evolve with the volume and status of program activities. If, during the first few years, emphasis was placed on the establishment of procedures, training of personnel, and establishment of subcontracts and other contractual documents, our tasks are now more and more often oriented towards technical assistance and verification, especially of conformity to norms and procedures of contracts and their execution.

2.6.2 Strategic challenges

- Guarantee that prior to closing the office subcontracts and grant agreements in the Mahajanga region are handled according to procedure;
- Amend/annul subcontracts/grant agreements as necessitated by budgetary restructuring;
- Work with each regional office to guarantee adherence to budgetary allotments;
- Guarantee a monthly visit to each regional office;
- Improve the evaluation and payment system under IF, particularly through the creation of a database.

2.6.3 Planned activities

Guarantee that prior to closing the office subcontracts and grant agreements in the Mahajanga region are handled according to procedure

Subcontracts and/or grant agreements considered ineffective or of secondary importance have already been cancelled. Subcontracts and/or grant agreements whose completion was scheduled for after December, 2001, have been amended to end by that date.

In this manner, a definitive contractual situation was established in the Mahajanga region by the end of the third year. The office will make no new engagements before closing.

Systematic monthly visits will continue to support the region's administrative and financial responsible until the Regional Office closes.

Amend/annul subcontracts/grant agreements as necessitated by budgetary restructuring

Amendments or annulments have been made in the case of subcontracts which, upon evaluation by Regional Offices, were found either not worth pursuing or in need of adjustment.

Other subcontracts and/or grant agreements may also need amendment according to the new Work Plan and budgetary constraints.

This will be pursued as soon as the LDI Work Plan is finalized.

Work with each regional office to guarantee adherence to budgetary allotments

Both the nature and size of budget allotted to each region have been identified. The detailed budget will therefore serve as a reference for all undertakings and payments. Potential departures from the budget can be organized without much difficulty, especially since there will be no new engagements made during the year. (See budget figures in Overview Section of the Annual Workplan)

Improve the evaluation and payment system under IF, particularly through the creation of a database

The database should be in place during the second month of the year. Since the financial auditor is responsible for subcontracts and payments, it seems natural it should oversee and update this database.

In effect, within the unite of the intervention funds, the financial auditor who is linked to the person in charge of the intervention fund, manages the signed contracts in the framework of intervention funds, assures the monitoring of payments and by use of a database, follows the periodic situation of the commitments in the framework of the intervention funds; to do this, on a monthly basis the financial auditor exports the expenses registered in the accountant's Quick Books and puts them in a daily database, thus the periodic situation of the intervention funds are always in phase with accountant's data.

Guarantee a monthly visit to each regional office

Systematic monthly visits will continue as they have during the past year. This year visits will also be made to Antsiranana in light of activities there.

2.7 COUNTERPART FUNDS (FCV)

FCV USAID

LDI is listed in the PIP (Programme d'Investissement Public) for 3 billion Fmg.

FCV Japan

Although the PIP lists 500 million Fmg, LDI's account in fact holds only 353 million Fmg.

The year's objectives

- Secure all funds before August 31, 2001.
- Begin work again in Isalo following the agreement of the Japanese Government's FCV.
- Finish ALL works and pay all suppliers before November 30, 2001.

Activities

FCV USAID

Since the destination of the funds has been determined, a program for their use must be established (endorsed by MinENV, MinPLAN and USAID through the Malagasy Foreign Ministry).

FCV JAPAN

Since FCV Japan has signed the statement of use, renovation of trails can resume as soon as a Service Order is established.

FCV for 2002

Given the MinATV's need to pay for CAP trails, USAID will proceed to an audit, and has requested a budget for payment following audit results. In case of non-payment, the amount will become LDI's FCV for 2002. It will therefore be necessary to have this FCV included in the 2002 PIP (368 million Fmg).

VAT and DTI

Taxes for LDI's suppliers are paid by the Treasury. Once LDI establishes all relevant documents, these are signed by the Environment Ministry and the Finance Ministry - represented by the Contrôle des Dépenses Engagées (CDE) - and then submitted to the Treasury for payment.

The Re-CAP and FCE-Rehab projects are not listed in the PIP, so suppliers will submit their TVA to LDI. USAID requested that LDI consider them as sub-projects to this PIP listing.

Goals: LDI's PIP inscription must pay taxes on all three projects. The handling of all bills from these projects is very important given the insufficiency of funds.

For the year 2002, LDI's PIP inscription should reflect the taxes for all three projects. The proposal must be made to the Plan Ministry during August 2001.

2.8 Monitoring and Evaluation

2.8.1 Monitoring Pressures

At this time, one of the principle and basic tasks of the monitoring and evaluation team is to verify the work hypothesis of LDI, that the combination of agriculture intensification activities, community management of natural resources and environmental education together reduce the expansion of agricultural lands in the priority ecosystems. To do this, LDI has carried out an internal reflection on the practical and viable methodology which would enable each region to monitor pressures.

The experiences of previous projects and the experience of LDI during the first year in the realm of monitoring pressure indicators on resources have proved that the measurement of these indicators is difficult and of little significance without a precise methodology that is structured and adapted to the environment. The LDI Monitoring and Evaluation team has therefore launched an initiative to produce a procedural manual for monitoring tavy in order to have a practical methodology which combines a participatory approach with the tools of information systems (GIS, SGBD, aerial photos, GPS...) to monitor pressures. Based on the methodological approach proposed in this manual, PACT and LDI have proceeded to launch the different energetic steps to explain to the communities everything from the objectives of monitoring, to the creation of a tavy database and diverse spatial analyses. The most interesting analyses concern the causal relation between the presence of LDI in the ZSI and the evolution of tavy, as considered during this pilot monitoring phase. The report comprehensively analyzed the results, tendencies and practices of the Kolo Harena and the recommendations on the monitoring system and on LDI's strategic approach will be available in the next few months, after the final qualitative analysis and the crosschecking of information with the communities.

To assure that the monitoring of pressures exerted on the priority ecosystems will be done in a permanent manner, the MER team will evaluate the methodology used in the pilot phase before introducing the study throughout the whole ZSI.

2.8.2 Mahajanga end of project assessment

It falls to the evaluation unit to produce a report documenting an end to all interventions in Mahajanga, in December 2001. The Antananarivo office will help the Mahajanga team to capitalize on lessons learned, successful technical assistance experiences, support for Kolo Harena, training, and especially follow-up and evaluation.

2.8.3 Create a database of LDI beneficiaries

The establishment of a database for all Kolo Harena associations and environment-friendly businesses will take place during this first semester. A statistical consultant will be recruited to standardize the structure and the management of the databases that already exist in the three LDI regions. He or she will also be in charge of compiling a database at the central level so that the main office will have access to the same level of information as the regional offices.

2.8.4 Semester and annual report

The MER team will continue to release information on the progress of LDI interventions. With the database of beneficiaries, a progress report will automatically be available at all levels of intervention : local, ZSI and regional. The team will work to draw up a framework of LDI contractual reports in order to better present intervention results and to facilitate analyses and evaluations.

Summary of LDI 2001-2002 targets are shown in the overview section (see page 8 in Overview Section)

2.9 Administrative support

2.9.1 Lessons learned

Experience shows that despite regular follow-up, certain procedures are not followed if they are not highlighted, and even then they may be interpreted slightly differently from region to region. It is therefore both helpful and necessary to meet regularly with regional administrative staff. It has been suggested that meetings will be held every six months.

2.9.2 Strategic challenges

- Help regional staff follow administrative and financial procedures;
- Organize regular inter-regional administrative meetings, despite workloads;
- Close out the Mahajanga office;
- Guarantee staff receive support, and try to improve that support despite a very limited operational budget.

2.9.3 Targets

- Organize at least 2 inter-regional administrative staff meetings each year;
- Monitor the operation of each office carefully;
- Close out Mahajanga;
- Try to improve communications for better technical staff support.

2.10 Budget

Antananarivo INTERVENTION FUND BUDGET July 2001- June 2002

ACTIVITIES	BUDGET CATEGORIES													
	REGULAR BUDGET					USAID FCV			Japanese FCV			CYCLON PROGRA M 1st TRANCH E	CYCLON PROGRA M 2nd TRANCH E	TOTAL
	Technic al Assista nce	Credit	Direct Material support	Resear ch	Total	Technic al Assista nce	Direct Material Support	Total	Technic al Assista nce	Direct Material Support	Total			
Agricultural Intensification					\$0									\$0
Community Mgmt of Nat Resources		\$0		\$0	\$0									\$0
Environmental Education	\$10,000	\$0	\$5,000	\$0	\$15,000									\$15,000
EFE Promotion	\$23,721	\$152,440	\$1,587	\$0	\$177,748									\$177,748
Reinforcement of partner capacity	\$38,484	\$0		\$0	\$38,484									\$38,484
FCE Railroad	\$0	\$0	\$0	\$0	\$0									\$0
Road Construction								\$0			\$0			\$0
Irrigation Infrastructures / Dams														\$0
Other Infrastructures					\$0			\$0						\$0
Seeds														\$0
Ag Supply Center and Granary														\$0
Mini grants to communes														\$0
Appui Technique														\$0
FCE Community work														\$0
Radio														\$0
TOTAL	\$72,205	\$152,440	\$6,587	\$0	\$231,232		\$0	\$0		\$0	\$0	\$0	\$0	\$231,232

3. Antsiranana region

3.1 Results of the third year

Since LDI intervention in Antsiranana region, the strategic challenge was to provide support in a way that would create a sound foundation for larger scale development in years to come. This challenge was reached during the first two years. So, the principal results during 2000-2001 were as follows:

- Two (2) basic lodges have been built with the support of Ankarana villagers association. This association will use these basic lodges to offer accommodation to eco-tourists who visit the region, in order to generate income for the villagers. Miscellaneous technical supports have been given and continued to be given to this villagers association to make these lodges operational by 2001-2002 year of LDI intervention.



The Nature Lodge will fully contribute to the development of the ecotourism activities within the Joffreville and the Ankarana parks. Photos of the Nature Lodge under construction and after construction

- Two ecolodges which represent an investment of more than \$400,000, with a total of 24 rooms are under construction and will be finished by the end of this year. One of them had received the support of FIEFE funds in which an equivalent of US\$ 80,000 were released. These ecolodges will contribute to the development of ecotourism activities within the two parks, Ankarana and Amber Mountain.
- Supports were given to "Eco-Tourisme Nord" (ETN), an association of private tourism agencies, to create an information bureau called "Comptoir du Tourisme" and to elaborate the Regional Tourism Guide which is now edited in Mauritius and will be put into sale by the beginning of July 2001. These activities both aimed to the promotion and the development of the region.
- Miscellaneous trainings such as english language, sales techniques, administrative and financial management of projects have been organized to reinforce the technical capacities of local private operators and local villagers associations.
- Within the support of the development of the two Ecotourism Investment Zones in Ankarana and Amber Mountain, technical studies were undertaken for the rehabilitation of water supply systems. For the case of Amber Mountain, one "socio-organisateur" has been hired to help the villagers install all procedures to manage in a sustainable manner the futur water supply system.

3.2 2001-2002 targets

As for the first two years, the Antananarivo office will still direct ecotourism support to Antsiranana and serve as a resource for ecotourism activities in other regions. Ecotourism is a relatively new sector in Madagascar, with considerable potential to generate significant revenues to those who invest successfully. It is a high profile sector, in large part because of its economic potential. It also has potential to set an example as a successful conservation enterprise activity, making profitable, non-destructive use of the country's biodiversity. LDI's main objectives in Antsiranana will be :

- Various commercial contracts are established and undertaken between the local private operators through the ETN association and the village association of Ankarana to promote the two (2) basic lodges;
- One (1) ecolodge been built by potential investor in Ankarana or Joffreville;
- Technical assistance to the rehabilitation of the water supply system in Joffreville and in Ankarana ;
- Technical assistance to the creation of new protected areas such as Montagne des Français.

3.3 Principal Activities that will be undertaken in Antsiranana

They will be focused on the following points:

- Support the development of the two ZIE and their peripheral zones;
- Support the sustainability of the “Comptoir du Tourisme”;
- Strengthen local operators capacities;
- Support investors in the development of ecolodges and other activities related to ecotourism;
- Support to Villagers association for the development of simple lodges;
- Educate new concept of Ecotourism.
- Support the creation of new protected site or area.

a) Support the development of the two ZIE and peripheral zones

Great efforts should be deployed to assure sustainable development of the two ZIE. All stakeholders – local authorities, local communities and future investors - should be fully involved in the follow up to activities related to new investments in these two ZIE's. Particular attention should be addressed to local authorities who play a primary role in the process: LDI will provide necessary technical assistance. People living in the peripheral zones also need to directly participate in this development. Either directly or through partners, LDI will work to improve the well-being of the surrounding population. Rehabilitation of the water supply systems is priorities. LDI will invest 700 millions Fmg from the counterpart fund to rehabilitate the water supply systems in Joffreville and Ankarana. LDI will probably hire socio-organismes to help village associations to manage such resources and may also hire an Expert Junior if needed.

b) Sustainability of the “Comptoir du Tourisme”

The “Comptoir du Tourism” has recently been set up by the ETN association with support from LDI. We will continue to support this activity by hiring an Expert Junior in order to help them manage this tourism information center as well as the whole activities of this association. To better promote the region, LDI will assist the ETN association to undertake a marketing study and, as appropriate, will help to develop new activities as determined by this study.

c) Capacity building for local tourist agencies

Technical assistance to strengthen managerial skills of local tourist agencies will be arranged by LDI through ETN in accordance with priorities already identified.

d) Assistance for investors to develop ecolodges and other activities related to ecotourism

LDI will continue to assist investors who are ready to build ecolodges either in or outside of the two ZIEs. Indeed, two potential investors have already identified sites in the Ankarana ZIE; another investor is interested to the East side of the Amber Mountain Park. Most of this support will be in the form of technical assistance and training. Another possibility is credit through the FIEFE (*Fonds d'Investissement pour les Entreprises Favorables à l'Environnement*).

e) Development of basic lodges by Village associations

Local involvement is an important element of ecotourism development and a good way to ensure that benefits remain with local communities. Ankarana has been identified as a strategic zone for potential development. LDI will continue to support the village association in Ankarana in the management and the promotion of its basic



A community well in Ambatoharanana: under and after construction

lodges. LDI will also invest 300 millions Fmg from the counterpart fund to rehabilitate the access road to the Andrafiabe village. Some training and other technical assistance will be needed for this project. These activities will be undertaken directly or through partners like ETN and Peace Corps with a punctual support of the socio-organisateur from Lalana NGO.

f) Education in the new concept of Ecotourism

Ecotourism is still a new idea to most private businesses and local communities in the area. LDI will take the necessary steps to educate target groups by developping films on ecotourism. These materials will be used to show the evolution of ecotourism in Madagascar and also to show LDI successes in all other regions where we work.

g) Creation of new protected sites or areas

The Antsiranana region offers a full combination of potential tourism and ecotourism sites, but to date, conservation and development activities have been focused only on the two national parks: Amber Mountain and Ankarana. Local private tourist agencies and principal actors suggest making the same kind of effort for other notable sites such as the *Montagne des Français*.

3.4 Budget July 2001 – June 2002

Antsiranana
INTERVENTION FUND BUDGET
July 2001 - June 2002

Activities	BUDGET CATEGORIES													
	REGULAR BUDGET					USAID FCV			Japanese FCV			CYCLON PROGRAM 1st TRANCHE	CYCLON PROGRAM 2nd TRANCHE	TOTAL
	Technical Assistance	Credit	Direct Material support	Research	Total	Technical Assistance	Direct Material Support	Total	Technical Assistance	Direct Material Support	Total			
Agricultural Intensification					\$0									\$0
Community Mgmt of Nat Resources		\$0		\$0	\$0									\$0
Environmental Education		\$0		\$0	\$0									\$0
EFE Promotion	\$6,429		\$11,352	\$0	\$17,781									\$17,781
Reinforcement of partner capacity	\$10,947	\$0		\$0	\$10,947									\$10,947
FCE Railroad	\$0	\$0	\$0	\$0	\$0									\$0
Road Construction						\$7,084		\$7,084			\$0			\$7,084
Irrigation Infrastructures / Dams														\$0
Other Infrastructures	\$9,411				\$9,411	\$21,196	\$94,230	\$115,426						\$124,837
Seeds														\$0
Ag Supply Center and Granary														\$0
Mini grants to communes														\$0
Appui Technique														\$0
FCE Community work														\$0
Radio														\$0
TOTAL	\$26,787	\$0	\$11,352	\$0	\$38,139	\$28,280	\$94,230	\$122,510		\$0	\$0	\$0	\$0	\$160,649

4. LDI Fianarantsoa

4.1 Regional Support Activities

4.1.1 Refine Ecoregional Vision

LDI Fianarantsoa and its partner organizations like Pact/Miray, AGERAS/SAGE, and the Comité Multilocal de Planification have expended considerable efforts to build through a highly participatory fashion a more cohesive and unified ecoregional vision for the Ranomafana – Pic d'Ivohibe forest corridor. The constantly changing makeup of regional political actors requires a constant investment in educating new leaders in the challenges and opportunities for improved management of the forest corridor. For the third straight year LDI and its associates will once again mount an educational campaign on the importance of the corridor to the economic, social, and environmental welfare of the *faritany* of Fianarantsoa. Thanks to the investments of Pact/Miray and ILO in strengthening the *Cellule Technique du Faritany*, LDI and its partners should be in a good position to educate the new political and administrative leadership of the province in the economic and biological role of the corridor. This time LDI and its partners will seek the assistance from the USAID funded PAGE program to assist in biological prioritization – a process started two years ago but never completed because the biological knowledge of the corridor was so limited. As part of this effort, the *Comité de Pilotage de l'Inventaire Biologique* will sponsor an international conference bringing top Malagasy and expatriate conservationists together to work with local stakeholders to define the key conservation priorities for the corridor. The committee will seek financial assistance from a variety of sources ranging from the US Forestry Service to the Office National de l'Environnement. This priority setting exercise should help focus attention on the threats to the corridor and the need for the new *Province Autonome* to support initiatives under PE II and PE III to manage on a sustainable basis this extremely valuable resource.



LDI Fianarantsoa and its partners will continue to educate the new political and administrative leadership of the province in the economic and biological role of the corridor.

4.1.2 Learn, Consolidate and Adapt

LDI Fianarantsoa will continue to assess and modify its program based on lessons learned from monitoring and evaluation carried out at multiple levels. At the village level, LDI Fianarantsoa will continue to conduct on an annual basis rapid rural assessments to evaluate the impact of its program on the people and the environment along the corridor. These evaluations have profoundly shaped in the past the strategies and actions of LDI field agents. For instance, last year's appraisals encouraged the staff to think hard about developing new ways of promoting farmer-to-farmer extension. The studies have highlighted the spread effect of LDI's interventions throughout rural areas where the program works. But this grassroots orientation does not go far enough in portraying the nature of change in ecological dynamics along the forest corridor. While it may not be possible to conduct the flyovers and assessments of satellite imagery planned for this year with the assistance of Pact/Miray and other partners, the initial data acquired needs to be analyzed in great detail. The program needs to have a better idea of whether or not the wide range of interventions are having any influence on halting environmental degradation along the corridor. This information will be extremely critical to shaping the contours of the new PE III 5 years plan and strategy. In effect, this is a year to consolidate achievements, to learn how to use our acquired knowledge, skills and information in a better way to advance regional development in the Fianarantsoa province.

4.1.3 Foster Partnerships with the USAID Health Sector

Over the past years LDI and JSI have worked closely together to develop joint programs in providing public health and family planning services to the remote rural communities of the forest corridor. Through a grant to MICET's health component, rural communities in some of LDI's strategic zones of intervention are beginning to obtain access to public health and family planning services. LDI Fianarantsoa will continue to support this initiative and seek to draw into the area new sources of support from such institutions as the Packard Foundation. If a grant is obtained from Packard Foundation, JSI and LDI through the Voahary Salama program will carry out test population-environment initiatives in communities along the eastern side of the forest corridor.

4.1.4 Foster Partnerships with Peace Corps

The LDI Fianarantsoa program will continue to be open to working with Peace Corps volunteers located around the Ranomafana and Andringitra national parks. Volunteers have made numerous contributions to LDI programs over the past two years and this cooperation will be fostered in the future. The program will search for ways to work with the Health volunteers in order to expand the Voahary Salama program in its strategic zones of intervention.

4.2 Agricultural Intensification

4.2.1 Package of Agricultural Intensification Practices

The agricultural intensification program will continue on the same track as previous years. LDI field agents and staff from partner organizations will continue to channel technical advice and information to Kolo Harena associations on themes ranging from intensive rice production (SRI/SRA) and tanety rehabilitation during the rainy season to vegetable growing, potato production, cash crop diversification into coffee/ginger or pepper growing, small animal husbandry, fish culture, and bee keeping in the dry season. This year the program will experiment with crawfish production on the high elevations of the western side of the forest corridor thanks to technical inputs from an Oxford University Ph.D. candidate in biology and the NGO Miray Mahefa. This systems approach to agricultural intensification encourages the expansion of integrated production techniques such as introducing bee keeping in a particular locale that not only generates supplemental income for the farmer, but encourages extensive planting of melliferous plants and improved management of natural forests and eucalyptus plantations. LDI Fianarantsoa will expand the system of decentralized and privately operated seedling nurseries so successfully launched by the FCE cyclone recovery program at sites along the railway. This is to insure the introduction of higher quality genetic material into the tree cropping systems. Successful initiatives to expand the use of vetiver to strengthen irrigation dikes and fishponds will continue. This initiative is strengthened by the enthusiastic adoption of vetiver by farmers involved in the FCE rehabilitation effort.



4.2.2 Expand Market Oriented Cash Crop Production

LDI Fianarantsoa will continue to carry out activities to diversify the agricultural economies of the eastern and western side of the forest corridor. Diversification will be accompanied by initiatives to draw Kolo Harena into market networks for a variety of cash crops demanded

by the regional urban markets and the international market. On the western side of the corridor, this will include experimentation with crawfish production to meet the demand from travelers along the RN 25 road to Ranomafana and the FCE railroad as well as from hotel operators in Fianarantsoa. As in past years, the program will continue to introduce Arabica coffee, Bulgarian Roses, dry season vegetable production, and improved varieties of citrus. For the lowland tropical zones of the eastern side of the corridor the program will continue to encourage the expansion of pepper, cloves, cinnamon, ginger, improved varieties of citrus, apples adapted to tropical conditions, and ravensara. This program will complement closely the approach utilized by the FCE Rehabilitation project to regenerate through perennial crops the railroad rights of way. Experimentation will commence on basil, hot pepper (pimento), and vanilla – all products with interesting market opportunities. Kolo Harena strongly advise LDI against excessive investment in renewal of robusta coffee plantations given the continuation of the extremely low prices for coffee on the international market. Instead they recommend assistance in pruning existing trees, but not replanting with new varieties of robusta coffee.

LDI Fianarantsoa will invest new resources in the Manakara region to expand cash crop production in the Faraony valley. As in previous years, the strategy is to foster the renaissance of the coastal economy in order to reduce in the long-term human migration toward the last agricultural frontier in the faritany – the forest corridor. The program will continue to provide technical assistance in the Faraony valley to the AGROMAN farm and through USAID *Fonds de Contre Valeur* it will contribute the rehabilitation of a key secondary feeder road to the FCE railway. LDI will provide technical assistance to Kolo Harena located near the AGROMAN farm on cash crops like pepper, coffee, cinnamon, and cloves. AGROMAN in turn will become a source of high quality seedlings sold at subsidized prices to farmers. The CAP rehabilitated road from Bekatra to Lokomby threads along a booming agricultural zone. LDI has contributed to the expansion of bee keeping and rice-fish culture in this region. These activities will continue but this year a contract will be tendered to existing NGOs to expand coverage along the valley.

4.2.3 Rehabilitate Agricultural and Rural Infrastructures

The supplemental USAID cyclone recovery funding to LDI Fianarantsoa for agricultural infrastructures will permit the rehabilitation of 1800 hectares of rice growing lands and selective reconstruction of 156 km of roads damaged by cyclones. These funds will be complemented by USAID counterpart funds for investments in road repairs at Isalo (around the park and within the Zone d'Investissement Ecotouristique) and near Manakara. Beyond this investment of cyclone recovery funds and USAID counterpart funds, LDI will not embark on further infrastructure initiatives due to its limited capacity to absorb the management of additional construction activities during this year. LDI Fianarantsoa will set up water users associations and Kolo Harena to insure not only maintenance of these infrastructures but also introduction of the package of agricultural practices like SRI/SRA rice cultivation, dry season gardening, potato production, and improved soil fertility techniques.

4.2.4 Focus on Agricultural Extension through Kolo Harena

The past year's activities demonstrated the validity of working through Kolo Harena to expand the impact of LDI's vision and approach. Kolo Harena provided valuable feedback on the strengths and weaknesses of various technical packages. Gradually the benefits of collaborative efforts are beginning to show fruit as farmers learn of the advantages of exchanging labor, ideas, and new techniques. Experiments with farmer-to-farmer exchanges demonstrated how rapidly agricultural adoption can occur when farmers see successful examples of new agricultural practices. The farmer visits and exchange extension model will be expanded in the year to come. But a balance must be found between the need to introduce new agricultural practices through LDI and partner organization technicians and the risk of creating dependency situations between the farmer and the extension agent. A network of *animateurs villageois* will be set up – farmers particularly skilled in certain *filiales* – to disseminate agricultural practices. As recommended by the federations of Kolo Harena, these farmers will be remunerated in kind by Kolo Harena recipients of the technical assistance.

4.2.5 Reinforce Agricultural Supply Centers and Rural Credit Access

The Agricultural Supply Centers are extremely popular among rural residents in LDI's strategic zones of intervention but management difficulties continue. After considerable reflection and analysis with the Kolo Harena and other stakeholders, LDI will set up mechanisms for the management of the centers to be placed in the hands of the Kolo Harena federations. Technical assistance will be directed toward reinforcing the capacity of the Kolo Harena to manage these agricultural centers. The rural credit systems offered by LDI through the agricultural supply centers and the Fianarantsoa banking institutions will similarly be reinforced. Farmers are gradually becoming more interested in agricultural credit provided that delivery of the credit is on time and within their means.

of reimbursement. LDI will continue to reinforce the successful *caution solidaire* system whereby the Kolo Harena members, men and women, provide moral and financial guarantees to the member seeking credit.

4.2.6 Plant Propagation and Agricultural Training Centers

LDI Fianarantsoa invested considerable financial resources in working with FOFIFA to rehabilitate the Kianjavato research station. This initiative faltered because FOFIFA was not willing to lease out parts of the station to a concessionaire who would have developed a private plant propagation center. In light of this setback, LDI will focus its efforts on strengthening the CCD Namana Silkworm training center in collaboration with other donors in order to provide agricultural training services to interested rural communities. Rather than strengthening the Kianjavato center, LDI will work with AGROMAN, Pépinière de la Mania, and other growers to introduce genetically improved cash crops through a more decentralized system of nurseries operated by the private sector and small farmers.

4.3 Communication and Environmental Education

The communication and environmental education program continues to be the cornerstone for LDI's interventions in the field. The thrust of the environmental messages, "Améliorer le niveau de vie, tout en préservant l'environnement" and "Gérer ensemble pour un développement durable" are the two central themes that will continue to be promulgated as part of the regional communication plan negotiated a year and a half ago. Around these two central messages the communication component develops tools and techniques to respond to needs for technical information at the community level and education on environmental issues at the regional and national level. Experience over the past year shows that this twin thrust brings about complementary policy and programmatic support at the regional and national level for agricultural and conservation enterprise activities carried out by Kolo Harena.

Environmental communication activities launched along the FCE railway corridor in year two yielded enormous benefits to LDI. New insights were gained on ways to communicate effectively with rural communities, several new communication tools were developed, and strong linkages were built with the communities along the line. Even though this environmental communication program along the FCE is financed through cyclone recovery funds managed through a contract with the NGO Haoña Soa, LDI will continue to foster synergies between the two initiatives by sharing information and ideas, communication equipment, and other resources.

The communication and environmental education staff will continue to manage the population-environment activities launched with the collaboration of JSI, MICET, and potentially the Packard Foundation.

4.4 Community-based Natural Resource Management

LDI Fianarantsoa will invest judiciously Intervention Fund resources in advancing the community-based natural resource management component after having spent two years building rapport and trust with the DIREF/CIREF forestry services and local communities to embark on the transfer of management control from the state to local communities. The *Gestion Contractualisée des Forêts (GCF)* approach is an amalgamation of legal principles and practices residing in ministerial decrees of the Ministry of Environment (ONE) and the Ministry of Water and Forests. Through legal education and training of local authorities and Kolo Harena in the complexities of the GCF, LDI hopes to advance considerably the process of responsible transfer of management control to local communities. But the simple transfer of legal control is not enough. Local communities must be empowered with the visions and skills to manage on a sustainable basis these forests. LDI will contract out the WWF Dette Nature program to assist in this effort in some sites along the corridor.

The community-based natural resource management program will be



LDI and DIREF devise new resource management approaches for the plantations of the Haute Matsiatra to meet the local community's needs

carried out in at least four sites in the forest corridor. Demand for community transfers is now unleashed and LDI will not be able to meet the demand. With these initial efforts, the sites will become important village-to-village training sites. But LDI will also work closely with the DIREF and CIREF to devise new resource management approaches for the plantations of the Haute Matsiatra. To meet the heavy demand for technical expertise placed on the DIREF, LDI will explore the possibilities of seconding an expert junior to the forestry department. While LDI has worked with the Intercoopération Suisse over the past two years to bring about changes in plantation management, this has not yet led to many results. A coalition of partners plan to work with the US Forestry Service to start a pilot plantation management scheme using improved silvicultural techniques to demonstrate the economic benefits and costs of improved management. Additional support will be sought from the US Forestry Service.

Rural communities extract a wide variety of forest products from the Ranomafana – Pic d'Ivohibe corridor. Among the most valuable products are crawfish. Prodigious amounts are sold along the highways and the FCE railway. Crawfish populations are reported in decline. LDI will work with ANGAP, a doctoral student from Cambridge University, and the NGO Miray Mahefa to test intensive crawfish production techniques in small pilot plots in farmer's fields and at the Ampamaherana forest station.

4.5 Conservation Enterprises

4.5.1 Ecotourism

The LDI Fianarantsoa program contributed significantly to the expansion in the quality of ecotourism activities in its second year. Major leadership was provided to the Regional Comité Eclipse to assure preparations by the private and public sector for the June 21, 2001 eclipse. Considerable staff time was invested in trying to broker credit arrangements for the Camp Catta, Domaine Nature, and Centrest hotels. With technical assistance from LDI, the Delta Informatique "fianarantsoa.com" website was significantly improved. Significant resources were invested to help the Ministry of Tourism institute the *Zone d'Investissement Ecotouristique* (ZIE) in Isalo.

These initiatives leading to the expansion of ecotourism growth poles in the vicinity of Ranomafana National Park, Andringitra National Park, Isalo National Park, the *Forêt de Zafimaniry*, and at selected sites along the FCE railway will continue in this third year of activities. Communes are increasingly interested in setting up locally managed forest reserves and ecotourism sites. LDI will try to work with the commune of Sahambavy to develop its ecotourism circuit as a complementary activity to spur use of the FCE railway and tourism activities around the Lac Sahambavy. With this strategy in mind, LDI will continue to assist and monitor the implementation of the *Plan d'Aménagement* of the ZIE in Isalo. The *expert junior* seconded to the *Comité de Développement de l'Isalo* (CDI) will put in place the work plan conceived during these first months at site. LDI will supervise the expenditures of USAID and Japanese *contre valeur* funds in Isalo for a feeder road within the ZIE and tourism access roads outside the park.

In Andringitra, LDI will continue to work closely with ANGAP and WWF to contribute to the development of hotel facilities near the park but first the various parties must invest considerable resources in helping to resolve a land tenure dispute at a key hotel site. LDI and WWF built a new hiking trail linking the Sahanambo Valley on the western side of Andringitra National Park to Pic Boby. Both institutions will continue to work with local tour operators and the community to solidify the trail users association.

LDI Fianarantsoa has supported the expansion of tourism along the FCE railway in past years by helping to obtain and rehabilitate the Micheline train and working with tour operators and the railway to develop effective tourism products. This initiative will continue at a time when the FCE Rehabilitation project is helping to increase the efficiency and reliability of train service. Once again LDI will work with the regional tourism authorities, the FCE, and local tour operators to try to put in place an ecotourism plan for the railway corridor. This plan will consist of the identification of ecotourism sites of interest along the railway and recommend strategies for developing each site.

4.5.2 Fruit Trees

The agricultural intensification and the conservation enterprise components work together to introduce new genetic stock of fruit trees into the region. LDI has contributed significantly through the FCE rehabilitation effort and its own agricultural intensification program to import new virus resistant lemon root stock into the region. New and improved varieties of citrus trees have been purchased by Pépinière de la Mania and out-planted throughout LDI Strategic Zones of Intervention. These initiatives will be greatly expanded during year three with a particular focus

placed on marketing fruit surplus. Following the hiring of a marketing specialist in the Fianarantsoa regional office, the program now has the capacity to expand its brokering function between Kolo Harena, transporters, and buyers. LDI will continue to invest resources in the reorganization of the export sector for litchis and other cash crops from Manakara.

4.5.3 Fish Farming

The LDI Fianarantsoa program has worked with farmers in Kolo Harena associations to build over 10 hectares of fishponds. As conceived in last year's work plan, decentralized fingerling centers have been built throughout the SZI. About 13 metric tons of fish were harvested by Kolo Harena farmers last year despite some technical difficulties. The situation may soon be reached where production exceeds largely household consumption needs. The conservation enterprise program will thus expand its initiative to help farmers market in hygienically appropriate conditions fresh fish in local markets but also work with producers to develop efficient ways to dry or smoke surplus.



Fish production from Kolo Harena farmers will be transformed and treated drying and smoking operations to generate higher value added

4.5.4 Bee Keeping

For the second consecutive year LDI Fianarantsoa expanded the bee keeping program. Currently about 700 bee hives are situated throughout its strategic zones of intervention. These hives should generate a considerable amount of honey this year. This type of surplus needs to reach the regional and national market. LDI Fianarantsoa will continue to work with such partners as CORANIR SARL, Pépinière de la Mania, and others private operators to restructure the anarchic honey market. The recommendations from the honey *filière* study by Pépinière de la Mania will be the foundations for both the production and marketing components of the program.

4.5.5 Charcoal Production

The Fianarantsoa region is rich in eucalyptus plantations. Coppiced properly, these trees are a sustainable source of firewood and charcoal for the growing urban markets of Ambositra, Fianarantsoa, and Ambalavao. LDI placed an *expert junior* in the Ambohimahamasina ZSI to develop community management plans for eucalyptus harvesting. This year the *expert junior* seconded to the EASTA Iboaka forestry school will work with the community and private buyers to market the wood and produce charcoal from efficient kilns. The market conditions are particularly favorable, as a newly rehabilitated road has been built linking Ambohimahamasina to Ambalavao.

4.5.6 Silkworm Growing and Silk Production

The LDI Fianarantsoa program worked closely with CCD Namana in year two to develop a business plan for the Ambalavao silkworm center and it financed training for another group of young women. Despite these contributions, the center encountered technical difficulties because a virus ravaged the silk worms. LDI will continue to work with the center to improve its management structure and capacity to carry out high quality training. But the main focus will be on devising a system to assure financial viability for the center. This will entail working closely with CCD Namana to carry out the management and business plans



The management and business plans of the training center in Ambalavao is developed to promote the silk production.

developed with the assistance of the consulting firm SDL.

4.5.7 Essential Oils, Medicinal Plants and Aromatics

LDI Fianarantsoa collaborated closely in year two with its range of partners to expand essential oil production. Research continued on the technical package required for the expansion of Rose de Bulgarie introduced through Mac & Frères. This year the roses should be at a stage where root stock and cuttings can be out planted to surrounding farmers on an experimental basis. LDI will continue to contribute to this effort by covering the costs of an *expert junior* seconded to Mac & Frères. LDI will also work closely with CHEF and the Chamber of Commerce to expand the market for essential oils. As in previous years, the conservation enterprise and agricultural intensification programs will continue to encourage actively the diversification of the rural economy on the eastern side of the corridor through the introduction and expansion of pepper, cinnamon, and strengthening of the banana/coffee agroforestry system. This comes at a time when Kolo Harena are actively seeking alternatives to the depressed market demand for Robusta coffee. Contracts will be made with AGROMAN to sell a range of high quality pepper, clove, and other seedlings to the Kolo Harena through the eastern side of the corridor.

4.5.8 Privatization of the FCE Railway

The LDI Fianarantsoa program will continue to support privatization of the FCE railway in conjunction with the FCE Rehabilitation project. Cabinet Fivoarana will continue to provide technical assistance to LDI as it seeks the most expedient way to continue the process of setting up a railway concession of interest to national and international buyers. The program will look for supplementary funds from other donors to assist the railway to modernize its accounting, payroll, inventory, and ticketing systems and thus build upon the contributions LDI made this past year.

4.6 Capacity Building

The long term impacts of the LDI Fianarantsoa program rests in the hands of the partners supported by the program over the past two years. From now until the end of the LDI program, resources must be invested in strengthening the capacity of these organizations to carry out the initiatives launched together throughout the region. Capacity building is a cross-cutting initiative supported by the various components in LDI. The partners meriting concentrated inputs of technical assistance, training, and encouragement are noted below.

4.6.1 Kolo Harena

The central thrust of the capacity building program is to strengthen the capacity of the Kolo Harena to plan, experiment, and carry out agricultural intensification and conservation based enterprise activities. The Kolo Harena should become pressure groups that succeed in channeling development assistance offered by government and donors to improve livelihoods in their local communities. But at the same time they should become loci of autonomous initiatives to better local level social and economic conditions. LDI's capacity building program supported through the hard work of its dedicated *socio-organismes* will strive to build these skills in the remaining years of the program.

4.6.2 NGO Technical Partners

LDI Fianarantsoa confronts the dilemma that no agricultural extension service operates at this time in the region. The various extension services set up by the World Bank and other donors are currently defunct and the government extension offices face considerable budget constraints. The Kolo Harena thus have no source of technical inputs outside of those provided through LDI and its partners. LDI will work with the new development projects entering into the region this year to help them devise new and innovative farmer-to-farmer extension services based on the experience of our program these past two years.

4.6.3 Staff Training Program

With the limited financial resources at its disposal this year, the LDI Fianarantsoa will nevertheless place a particular effort in training field staff and middle level management in community organizing tools, new agricultural technologies, and other topics as identified by staff. Field agents are asking for refresher courses in topics like beekeeping, small animal husbandry, or planting of native species. The Fianarantsoa program looks forward to building on the experience gained at the LDI Moramanga Beforona CDIA center and Cornell University graduate school researchers through occasional site visits. This is the year for the two programs to exchange experiences and ideas from its respective initiatives of the past two years.

4.6.4 Student Research

Occasional student research will be supported through small stipends provided that the applied research serves the specific interests of LDI. Student theses or internships that advance programs in the field will be of particular interest. For example, students wishing to contribute their skills to putting in place ecotourism plans or community forestry activities will be particularly welcome.

4.7 Fianarantsoa 2001-2002 targets (July 2001 – June 2002)

Indicators for July 2001 to June 2002	Quantitative Objectives	Observations
Indicators for Activities		
Agricultural Intensification increase in yields increase in revenues Credit granted	20% 20% \$43,429 of which \$20,880 are new credits	Credits are granted to Kolo Harena either through the agricultural supply centers or through the micro-credit system.
Environmental Education - activities implemented with Kolo Harena	5 new environmental education activities 2 new projects supported by LDI in environmental education 300 Kolo Harena members targeted by the environmental education and communication activities	This component aims to reach 10% of Kolo Harena members.
Community-Based Natural Resource Management Number of Community Resource Management contracts signed Number of villages doing community resource management activities Number of hectares placed under Community Resource Management agreements Community Resource Management contracts implemented	- 3 contrats - 20 villages - 300 hectares - 3 contrats	
Conservation Enterprises Number of EFE supported New EFE investment projects Total investment in the EFEs Number of villagers supported by LDI having commercial relations with the EFEs	- 7 EFE - 0 - 0 - 300 members of Kolo Harena associations	Due to budget constraints, LDI Fianarantsoa will not be able to allocate FIEFE fund to private enterprises this year.
Local Capacity Building number of Kolo Harena associations created Number of households working with LDI Number of Animateurs Villageois Number of Federations of Kolo Harena associations reinforced with capacity-building activities	250 Kolo Harena 3 000 members in every site, at least 1 <i>animateur villageois</i> is trained and specialized in one activity to assist the other Kolo Harena members 6 federations are operational in Agricultural input supply centers management and other socio-organization related activities	
Indicators for Sub-Results		

Reduction of the expansion of agricultural lands within priority ecosystems follow-up of the human pressure trends in the SZI	Follow-up in 2 sites selected	LDI Fia will continue the tavy assessment through qualitative and quantitative information gathered in the SZI South corridor (Miarinarivo) and Central corridor (Alatsinainy-lalamarina)
Increase of commercial benefits from sustainable use of natural resources inventory of new EFE projects developed by other EFE in the region - evolution of turnover of the supported EFE - Number of created job opportunities		
Reinforcement of Kolo Harena associations to undertake sustainable development Number of targeted families adopting improved practices. Number of Kolo Harena participating in conservation and development activities	- 50% of Kolo Harena members - 20 of Kolo Harena members	
Indicators for Intermediate Results		
Sustainable use of natural resource Incidence of tavy		

4.8 Budget

Fianarantsoa

INTERVENTION FUND BUDGET

July 2001 - June 2002

	BUDGET CATEGORIES													
	REGULAR BUDGET					USAID FCV			Japanese FCV			CYCLO N PROGR AM 1st TRANC HE	CYCLO N PROGR AM 2nd TRANC HE	TOTAL
	Techni cal Assista nce	Credit	Direct Materia l support	Resear ch	Total	Techni cal Assista nce	Direct Materia l Support	Total	Techni cal Assista nce	Direct Materia l Support	Total			
gricultural tensification	\$112 772	\$20 880	\$0	\$2 000	\$135 652									\$135 652
community gmt of Nat resources	\$36 234	\$0	\$0	\$0	\$36 234									\$36 234
nvironmental education	\$9 252	\$0	\$4 376	\$0	\$13 628									\$13 628
E promotion	\$50 554	\$0	\$0	\$0	\$50 554									\$50 554
reinforceme	\$59	\$0	\$0	\$0	\$59									\$59

of partner capacity	700				700									700
CE Railroad	\$9 232	\$0	\$0	\$0	\$9 232									\$9 232
oad construction						\$12 688	\$156 224	\$168 912		\$55 556	\$55 556	\$52 215		\$276 682
Infrastructure / Dams													\$112 027	\$112 027
ther infrastructure														\$0
eds													\$12 341	\$12 341
Supply enter														\$0
ini grants to munes													\$40 000	\$40 000
opui technique													\$25 500	\$25 500
CE community ork														\$0
adio														\$0
TOTAL	\$277 744	\$20 880	\$4 376	\$2 000	\$305 000	\$12 688	\$156 224	\$168 912		\$55 556	\$55 556	\$52 215	\$189 868	\$771 550

5 Mahajanga region

LDI Mahajanga office will close as of December 31, 2001. This workplan concerns the next 6 months. Local staff members are going to raise into NGO which will take place and follow key activities and regional support undertaken in Mahajanga. These are essentially the cashew sectors, technical assistance of CLB in the community-based natural resource management, Kolo Harena federations and associations capacity building.

5.1 Lessons learned during the second year

5.1.1 Agricultural intensification

Kolo Harena are increasingly willing to trust LDI. They understand that LDI has served them well with its credit system and various other types of aide and assistance (training, phytosanitary protection, etc.).

Rainy season crops have once again proven insecure, this year due to uneven rainfall concentrated in January and December. Improved irrigation has become absolutely essential to rice production.

LDI unfortunately has no effective partners in Mahajanga, which has limited the extent and scale of our activities in the region.

5.1.2 Environment-friendly businesses

This second year has taught us:

That despite our efforts, there are still very few businesses willing to invest, especially in anything not familiar to agro-industry. This is due in part to a lack of venture capital, but also to a proclivity to develop within established economic niches (rice, vegetables, etc.).

That new sectors such as cashews or fruit conversion could nonetheless be very dynamic. Aloe, for example, despite being a new product, has such promise that it drew immediate interest.

That studies claiming it was possible to change the source of household energy for cooking from charcoal to gas were justified. On-credit sales of gas rings surpassed all expectations.

- That given the opportunity, Kolo Harena and the private sector might establish partnerships for sales and even for production.
- That administrative hurdles to the acquisition of land or the application of a management plan can discourage to the point of prevention investment in even the best constructed project.



"Eoah", a naturel juice produced by EXOFRUITMAD

5.1.3 Community management of natural resources

Gaining official status for natural resource management, transfers has allowed us to reduce and in some cases even do away with pressures to ecosystems, especially to forests (bush fires, charcoal production, illicit logging, etc). In fact, from the creation of a CLB (Comité locale de Base) to the signing of the management transfer contract, no destructive acts have been noted within areas awaiting transfer, and sometimes not even within the Fokontany as a whole.

In other terms, communities assumed responsibility from the outset of the "Gestion Contractualisée des Forêts" (GCF) process, from the choice of the site to the creation of a management plan to the conclusion of the GCF contract.

5.1.4 Environmental education

Applying the regional communication plan in Mahajanga with the help of the Serasera team and creating of two radio stations in Marovoay and Ambato-Boeni demonstrated the importance of continuing radio broadcasts within the Mahajanga ZSI.

Contracts will therefore be renewed with partner stations. Village animators from Kolo Harena will be trained to work with listening groups.

These animators will also follow up school reforestation activities in place of CCEE, who, by failing to render assistance, have thereby broken their partnership agreement.

Thus all activities begun last year will continue next year on a larger scale.

5.1.5 Local capacity building

The creation of Kolo Harena Federations is the basis on which activities both current and planned can be made sustainable and durable.

After training, Kolo Harena members can:
explain their goals to their partners;
undertake negotiations in order to reach collective decisions.

It has been noted that certain NGOs and Bureaux d'études with whom LDI has partnerships have proven unable to fulfill their responsibilities due to organizational and financial weaknesses.

5.2 Strategic challenges:

Strategies for the next six months remain:

Support the application of the eco-regional activity plan with all strategic partners (AGERAS, ANAE, ANGAP, FENU, Institutions, technical services, etc.).

Consolidate GCRNR acquisitions from the last two years, [crédit en place].

Build management capacities for CLB, Federations, and Kolo Harena.

Make structures and activities durable and sustainable.

5.3 Goals for the next semester

5.3.1 Eco-regional support

Participate in applying the regional communication plan.

Participate in establishing a regional assessment and evaluation team.

All PE 2 AGEX are collaborating with LDI on one project or another: agricultural intensification, regional communication, renovation of the Androtra lavaka, etc. A work plan has already been created for the Ankarafantsika and Bongolava forests. Various community development plans are available; some are already being applied.

In the years to come, eco-regional support will mainly be in the form of consolidating acquisitions and building capacities among partners.

5.3.2 Agricultural intensification

50% of KH members use improved techniques

Agricultural yield increased 10%.

Revenues for families using improved techniques increased 10%.

Agricultural intensification is just beginning in the Mahajanga region, industrial crops such as cotton and tobacco aside. Goals therefore remain modest. We hope to have farmers working towards achievable goals, mainly concerning soil quality (structure and fertility), using such approaches as compost, improved plant quality through improved seed, and cultural methods. To combat erosion on slopes, a limit will be placed on foraging and vétiver.



Improved crop X360 planted by Kolo Harena in the Amboatavokely valley

The majority of these activities concern subsistence crops. It is essential to diversify and above all to find revenue sources for farmers who might otherwise turn to the forest in times of want. Vegetable farming is already practiced to a limited extent; we will focus on broadening the practice and on introducing high-return cash crop vegetables.

We will continue to promote cashew, combava, lemon, and aloe at the regional level by developing marketing and product transformation.

With the help of the NGO MAROTIA we will introduce integrated pest and illness protection techniques. Kolo Harena members will be trained and materials provided.

We will support the Ankijabe duck farming initiative by offering ducklings on credit as well as health services..

Reforestation will continue, using eucalyptus or other species according to the needs of Kolo Harena.

To protect rice farms in the area around Ankarafantsika from silting, LDI will collaborate with ANGAP to stabilize two lavaka at Androtra. This will test applied techniques, and the results will serve later in applications for funding to stabilize other lavaka.

Centre de Diffusion pour l'Intensification Agricole

The NGO GREEN will take over management of the CDIA. This will begin in January 2002. LDI and GREEN will work on demonstration farms, research, and training.



Ducks in Ankijabe. Kolo Harena is responsible for their vaccination

Peanut crop research has included cleaning parcels, watching for insects and disease and treating damaged plants. For hibiscus, we are still studying damage and the production of seed. For the very new crop, aloe, we are testing behavior and reproduction with the intention of supplying raw materials to clients.

5.3.3 Environment-friendly businesses

342 farmers will be put in touch with businesses.
180 farmer members of 21 Kolo Harena will benefit from credit.

This year's goal will be to consolidate initiatives begun over the last two years (cashew, fruit, energy, etc). Consolidation will take the form of technical support and credit. LDI will help make the best possible choices for new projects, and will offer frequently lacking technical and marketing information to businesses. LDI will give technical assistance to ECUBIOPROCESS for a study on the potential of fruit and vegetable production in the Mahajanga region. This collaboration will be continued by the NGO GREEN.

The final approach will be to continue fostering relations between EFE and KH, and to promote the conclusion of a partnership agreement between them.

To make certain that credit schemes exist and function in each ZSI, the Federations that are to run them will be given management support.

5.3.4 Community management of natural resources

Finalize the management transfer contract for the Belalitra forest.
Help apply GPF contracts and existing management plan.

It is the intention of LDI Mahajanga to continue renewable resources (RNR) management transfer activities begun during the last two years while consolidating acquisitions.

A management transfer contract for the Ankijabe ZSI will therefore be finalized this year.

Improving capacities among the Communautés Locales de Base (CLB) is essential to durable RNR management transfer.

5.3.5 Environmental education

25 village animators trained in 25 villages.
Production of 3 editions of "Gazety Kolo Harena"

LDI Mahajanga will continue to work with Serasera to apply to the regional communication plan. LDI's primary targets members of Kolo Harena. Village animators will receive training and support in their work.

Various existing teaching materials will be used: posters, films on environmental themes, radio broadcasts, meetings, and screening/debates. The members of the KH associations will also continue editing the Kolo Harena newspaper.



Lambahoany are presented to the year's best Kolo Harena

5.3.6 Building local capacities

- Finalize recently formed Kolo Harena groups.
- Train KH leaders in administrative, organizational, technical, financial and material resources management.
- Help basic KH and Federations become operational.

During the second semester, LDI Mahajanga will pursue:

- Improved contract negotiation skills for KH.
- An approach designed to impact at the regional level.
- Durable and sustainable structures and actions that will yield more while respecting natural renewable resources.

Kolo Harena Federations play an important role representing KH associations and members to all development actors both local and regional.

5.4 Collaboration with the NGO GREEN

LDI and the NGO GREEN will sign a six-month contract by December 2001 for the continuation and initiation of LDI priority activities as listed below :

- support of the Kolo Harena in the realm of reinforcing their production capacity and management of the associations
- the reinforcement of the federations' capacity to manage the Agricultural Input Supply Centers and the rural credit system
- support the federations in their commercial relations with economic operators in Mahajanga
- support the federations in the creation and follow through of their annual work plan, thus establishing a projected account of the work to be done
- technical assistance to the Kolo Harena in planting cashews in the limitrophic zones of Ankarafantsika
- support local grassroots committees in the creation of resource management plans and contracts
- technical support of peer educators to assure the sustainability of the "Gazety Kolo Harena"

At the end of the contract, the five Kolo Harena federations should be capable of managing funds for agricultural credit and materials, continue to follow enterprise activities with LDI during the next three years and establish well-defined contracts with economic operators in Mahajanga for selling rice, peanuts, cassava, corn, off-season vegetables and fruits (citrus, mangoes,...).

Moreover, a committee to evaluate on-going activities will be established within the Kolo Harena federations to assure follow-through on enterprise activities.

5.5 Summary of LDI Mahajanga July 2001- December 2001 targets

Indicators 2001-2002	LDI Mahajanga Quantified Objectives	Notes on the Indicator
Activity Level		
Agricultural Intensification increase in production increase in revenue - allocate credit	- 10% - 10% - \$8,050 of which \$4,820 in rural credit and \$3,230 in input	The increase in production and revenue is based on figures collected in the "cahiers de ménages". The total here corresponds to the total amount of credit granted to Kolo Harena members
Environmental Education carry out EE&C activities which target the Kolo Harena carry out evaluations of the activities	- 2 activities - 1 evaluation per ZSI	
Community Management of Natural Resources number of contracts drawn up number of villages concerned in the community conservation number of villages concerned in the sustainable use of natural resources implemented of signed contracts	- 1 contract - 11 villages - 51 villages - 4 contracts	2 contracts have been planned to be transferred this year but the Tsiasesy forest is included in Ankarafantsika delimitation and will not transferred to the Imaitsanala local community
Promotion of EFE number of EFE supported by LDI total investments by supported EFE expenditure of FIEFE funds establishment of commercial relations between EFE and Kolo Harena	- 14 EFE - \$ - \$ - 342 farmers	The number of EFE supported by LDI is cumulative. LDI will continue to support existing EFE
Capacity Building Create Kolo Harena associations Work with members of Kolo Harena associations establish a system of farmer-to-farmer educators Number of Federations of Kolo Harena associations reinforced with capacity-building activities	- 69 associations - 1,125 members - 25 animateurs villageois - 1 expert junior	These indicators are cumulative. To assure the sustainability of activities, the animateurs villageois are selected by the KH members and will be trained by LDI to do technical extension for the other members. Federations are operational in Agricultural input supply centers management and other socio-organization related activities
Sub-level Outcomes		
Reduce the expansion of agricultural land in the priority ecosystems monitor the evolution of pressures in the ZSI	1 pilot site: Belalitra	This first step is to establish the methodology and procedures for monitoring tavy before later monitoring multiple activities throughout the ZSI.
Increase incentives for sustainable use of natural resource inventory EFE transgressions in the LDI regions evolution of turnover of the supported EFE Number of created job opportunities		There were no quantifiable objectives given that show the results of LDI support in promoting the EFE. Those are EFE that came into existence without the support of LDI.
Reinforce the capacity of Kolo Harenas to undertake sustainable practices number of people using the technique package number of Kolo Harena members who participate in conservation and development activities	- 50% - 20%	The associations which have their work plan participate in activities and follow-up evaluation of plans and participate in training which cover the themes.
Intermediate Results		
Sustainable Use of Natural Resources incidence of tavy incidence of fire incidence of charcoal production		These objectives have not been quantified, but the outcome will be noted when the study is complete.

5.6 Budget July 2001-December 2001

An analysis of the Intervention Funds budget allowed funds to be freed which were then reallocated in other categories such as creation of Kolo Harenas, establishing agreements between enterprises and the associations and prioritizing the activities which will be continued by the new NGO. With regard to the rehabilitation of the road to Amboromaika, Aqualma signed a protocol agreement with LDI accepting responsibility for supervision of the work.

INTERVENTION FUND BUDGET JULY 2001 - DECEMBER 2001

Activities	REGULAR BUDGET					USAID FCV			TOTAL
	Technical Assistance	Credit	Direct Material support	Research	Total	Technical Assistance	Direct Material Support	Total	
Agricultural Intensification	\$11,534	\$1,953	\$6,464	\$2,528	\$22,479				\$22,479
Community Mgmt of Nat Resources	\$23,852	\$0		\$0	\$23,852				\$23,852
Environmental Education	\$0	\$0		\$0	\$0				\$0
EFE Promotion	\$19,064	\$18,365		\$0	\$37,429				\$37,429
Reinforcement of partner capacity	\$27,935	\$0		\$0	\$27,935				\$27,935
Road Construction							\$28,222	\$28,222	\$28,222
Irrigation Infrastructures / Dams									\$0
Other Infrastructures							\$45,437	\$45,437	\$45,437
TOTAL	\$82,385	\$20,318	\$6,464	\$2,528	\$111,695		\$73,658	\$73,658	\$185,353

5.7 Activities

Activities	Targets	Partners
Sub-result 3.2.1 Limit the expansion of agricultural lands threatening priority ecosystems		
Agricultural Intensification - Promote improved seed and improved agricultural practices - Train AUEs - Introduce new cash crops - Reforest denuded zones - Promote improved vegetable farming - Promote the use of integrated crop protection management - Follow up CDIA activities	- 70 ha/200 households - 100 ha/50 households - 75 ha/150 households - 2 ha/100 households - 50 Kolo Harena trained	ANGAP, DIRAGRI, ANAE, PRB, PLAE, CDD Tambabe, FENU, MINEL, FOFIFA, , GTDR,
Community based natural resource management : - Finalize the contract transferring management of the Belalitra raffia forest	1 GCF contract signed	NGO, CLB, CDD FENU, Service des E&F, B.E
Environmental Communication/Education Apply regional communication plan Editing of "Gazety Kolo Harena"	2 sessions - 3 editions	
Sub result 3.2.2: Increase in viable conservation enterprises		
Conservation Enterprises Development of the subsector: Technical assistance to the coconuts initiative in planting Technical assistance in management supply centers offering credit	1 operator 1 training sessions	KAKOO
Sub result 3.2.3. Increased capacity of local actors to undertake sustainable practices		
Reinforcement of Local Capacity-building : Recycle KH leaders into association management Help KH and Federations become operational Follow up activities and organizational management of operational KH and Federations Support development and community management of natural resources activities by the 3 Anosimijoro/ Amboromaika groups	5 training sessions Creation of PTA and budget Various interventions 1 Junior Expert	PACT, FOFIFA, ANGAP, ANAE, ODAI/CDD, FENU, NGO,

6 MORAMANGA

6.1 Lessons learned during the 2000/2001 year

LDI Moramanga's principal mission is to conserve the forest corridor between the National Parks at Zahamena and Analamazaotra-Mantadia on the one hand, and to preserve the unique biological ecosystem around Lake Alaotra on the other. In each ZSI we have carried out a variety of activities such as agricultural intensification, promoting environment-friendly business, contractual management of natural resources, and capacity building. These activities have generally been successful. Here we will briefly state the lessons to be drawn from our two years of village-based activities.



LDI promotes a package of techniques including rice intensification in low lands, tenancy rehabilitation by cash crops and generating income activities

6.1.1 Ecoregional level

LDI Moramanga hopes targeted interventions on both sides of the corridor will reduce as much as possible the pressures that are being exerted on the forest between Zahamena and Mantadia. Our partners sought to create three new Strategic Intensive Zones in Fénérive-est, Brickaville, and the Vatomandry-Mahanoro area. The program endorsed these new zones as consistent with our goals and methodologies.

Thanks to field agent-led animation and information sessions and to the good reputation the program enjoys, several dozen Kolo Harena are successfully self-promoting, and concrete and concerted development activities have already begun.

In the first ZSIs, Kolo Harena Federations or rural partner associations (AUE, COBA, etc.), are taking their first steps, yet show signs of precocious maturity and responsibility; they are acting on their own initiative to manage the goods provided to them (materials, buildings and resources), and to promote their products, thereby improving revenues.



This is LDI Fenerive Est office

6.1.2 Agricultural intensification

1. It is essential to take a participative approach when planning activities with Kolo Harena:

- a top-down approach can lead to complete passivity and might well breed mistrust among members;
- to follow unquestioningly the wishes of a membership with limited capacity for analysis could lead to failure;
- participative technical and economic analyses are vital to keeping members involved in activities while assuring these are of economic and environmental interest.

2. Farmers not convinced of the need to invest in such things as improved seed will find themselves left behind. Their participation in activities and their use of new techniques will be repaid with a preferential price for intrants and other products and materials. Agricultural Supply centers should serve those embracing the planned objectives and fulfil local demand. In short, these centers should henceforth work with the revolving funds. A Federation or linked structure manages these funds with the advice and support of the program.

6.1.3 Promotion of conservation enterprises

Farmers do not feel directly involved or concerned by EFE activities. In fact, they generally find it hard to distinguish between an environment-friendly business and a traditional one. We must therefore:

- Encourage the creation of a harvest and product conversion unit for one or more cash crops under the management of a Kolo Harena Federation or similar local structure;
- Have the approval of farmers before introducing new products into a region;
- Encourage the establishment of clear and precise contracts between village communities and promoters, obliging both to respect their engagements towards the environment.

Making activities durable and sustainable requires on the one hand capable Kolo Harena associations and on the other a set of well-balanced relations with all the sectors involved (private sector, administrative services, NGOs,

various actors, etc.). Unfortunately many of these entities seem not to understand the program's role as mediator, and have a tendency to lean too heavily on the program for the development of their relations, particularly when negotiating contracts, prices, and other transactions.

Technical assistance given in the construction and planning of projects costs both time and money, while feasibility studies are not always conclusive. This leads us to:

- always require that operators take part in market and feasibility studies, thereby sharing the risks;
- focus on businesses already operational and trades already practiced in the region.

6.1.4 Environmental communication

Interzonal communication is essential if information and messages are to be delivered quickly to the team. Communication between ZSIs and the regional office is far improved by the BLU posts that have been installed at Moramanga, Beforona, Imerimandroso, Moramanga, and Lake Alaotra.

The goals, the practices and even the existence of LDI are unknown to a certain portion of the population. An effort must be made to win the majority of the rural population over to our principles and the Kolo Harena associations.

It is essential to be well informed about the environmental situation and tendencies in natural resources management when choosing which activities and messages will help effect sustainability and informed development.



Environmental education with pupils at school

KH partners taking long term responsibility for IEC at the end of the project must show a capacity for and competence in the participative selection and development of IEC/EE methods.

6.1.5 Capacity building

The past two years have been rich in capacity building experiences, especially for Kolo Harena, the communautés de base, and water users associations. Important points drawn from this:

- a judicious choice of serious partners who agree with our methods, adhere to our principles, and aspire to our objectives;
- an effort to promote permanent communication in order to cultivate and spread mutual trust among partners;
- the rational and ratified choice of training modules with a concrete impact on the performance of Kolo Harena or other rural partner associations, concerning, among others: the production, negotiation, marketing, management, and project planning sections;
- experimentation: the needs of farmers must be taken into account and their participation helps assure that messages are more widely transmitted;
- simple communication such as the sharing of experiences and innovations rather than a transfer of knowledge and know-how: the "farmer to farmer" approach seems the most appropriate, and the Centre de Diffusion et d'Intensification Agricole (CDIA) will play the role of window-model for partners and neighbors;
- the involvement of actor-beneficiaries such as Kolo Harena through a participative approach in the identification, conception, execution, evaluation, and orientation of their micro-projects; the program's role will essentially be that of facilitator-animator and advisor to help guide their methods or strategies towards the intended results or goals and to stimulate/maintain the existing dynamic.

6.1.6 Sustainable management of natural resources

This activity merits special attention, because the balance of a given ecosystem will depend on the long-term development in a given region. Only by following strict procedures can we hope to succeed in this area.

Support activities must be aimed at fostering a sense of responsibility for sustainability among actors: the environmental education and communication section will be called upon to play an important role concerning natural resources management. For this, our interventions at the client level must be superficial and provisional. Usage rights management, often evoked by the population, should not be a handicap. The question does not demand perpetual assistance as these resources have been in use since the time of the Malagasy kingdoms. Our support must therefore consist of only the most fundamental activities. Usage rights are a GCF experience similar to economic valuation or protection or other activities involving renewable natural resources.

Socio-organization is the basis and armature for GCF activities. Successful management transfers also depend on the involvement of a well-structured communauté de base or management committee throughout the process.

Intervention and mediation by a third, non-LDI, party is a good thing. Eventually conflicts within a community (between KH members and non-members) could distance members of the population, albeit interested and dynamic.

6.2 Strategic challenges

- Consolidate knowledge gained during the two first years of intervention.
- Confront contradictions discovered.
- Apply the conclusions from the first two challenges to new ZSIs.
- Increase the amount of impact activities have by increasing the rate of adoption of popularized techniques.
- Improve relations with other actors in the region and coordinate activities.



Farmers are interested with cash crops promotion. It needs technical and marketing boost

6.3 Year three targets

6.3.1 Ecoregional vision

- Improve collaboration with partners, especially with DWCT in Alaotra for an expansion into new zones.
- Improve exchanges with local authorities and state services.
- Despite the limited availability of credit, LDI Moramanga hopes to succeed in accomplishing an essential step towards expanding knowledge about farmer-to-farmer popularization thanks to the capitalization of knowledge and the organization of auxiliary trainings.

6.3.2 Agricultural Intensification

Develop a "farming system" approach that integrates conservation and biodiversity:

- Intensify irrigated rice: 80% of paddies farmed by Kolo Harena families should use SRA and a further 10% use SRI. Irrigated and renovated areas should be enlarged. Obtain a yield of 4 tonnes/ha.
- Intensify, diversify, and stabilize tanety agriculture by promoting cash crops and agroforestry as an alternative to slash and burn and tavy.
- Promote vegetable farming, off-season farming.
- Promote small-scale husbandry and reinforce its interaction with the other agricultural activities mentioned. Examples: fish farming, poultry farming, and pig farming and their relation to the production of rice, corn, vegetables, etc.; bee keeping and its relation to fruit farming.

6.3.3 Conservation-based enterprises

- Develop and improve business relations between Kolo Harena and the private sector: participation in regional fairs, establishment of contracts for production and/or marketing, membership and participation in movements and regional rural groups, "chambre de commerce et chambre de metier".
- Promote the creation of a local harvest and product conversion group to be managed by the Federation: peeling, honey centrifuges, drying, silkworm picking.
- Encourage initiatives involving rural women, such as silk culture, basket weaving, community camping sites.

6.3.4 Communication and Environmental education

- Support IEC activities to help Kolo Harena and communautés de base manage natural resources.
- Improve coordination between the agricultural intensification and the environmental education sections.
- Help KH improve inter-member communication about agricultural intensification techniques and environmental education.

6.3.5 Community-based natural resources management

- Finalize the 3 contracts being drawn up for the Alaotra area.
- Initiate 5 natural resources management contracts in Alaotra, Ambatovy, Antanandava, Didy and Fénérive-est
- With Kolo Harena, begin lavaka protection and watershed management in the Antanandava region.
- Initiate and reinforce ideas about soil conservation and pursue the use of organic mulches.
- Help the forestry services evaluate and advise the comités de base managing natural resources.

6.3.6 Capacity building

- Improve the process of autonomy for Kolo Harena and the AUEs. Project preparation capacity.
- Assure the autonomy and professionalization of Kolo Harena and AUEs.
- Use and improve the micro-credit and supply centers systems in an adequate manner.
- Motivate the KH Federations and the communautés de base.
- Organize experience sharing inter-KH and between KH and other rural organizations.
- Participate actively and assiduously in cooperative platforms such as GTDR, coordination committees, etc...

6.4 Budget: July 2001 – June 2002

MORAMANGA
INTERVENTION FUND BUDGET Year 4
July 2001- June 2002

		BUDGET CATEGORIES														
		REGULAR BUDGET					USAID FCV			Japanese FCV			CYCLON PROGRAM 1st TRANCHE	CYCLON PROGRAM 2nd TRANCHE	TOTAL	
		Technical Assistanc e	Credit	Direct Material support	Research	Total	Technical Assistance	Direct Material Support	Total	Technical Assistance	Direct Material Support	Total				
ACTIVITIES	Agricultural Intensification	\$82,558	\$17,545	\$22,194	\$24,294	\$146,591										\$146,591
	Community Mgmt of Nat Resources	\$2,020		\$8,380		\$10,400										\$10,400
	Environmental Education	\$12,110		\$5,901		\$18,011										\$18,011
	EFE Promotion	\$17,140		\$4,959		\$22,099										\$22,099
	Reinforcement of partner capacity	\$86,139		\$694		\$86,833										\$86,833
	FCE Railroad					\$0										\$0
	Road Construction								\$0			\$0				\$0
	Irrigation Infrastructures / Dams												\$84,458	\$318,498	\$402,956	
	Other Infrastructures															\$0
	Seeds													\$10,317	\$10,317	
	Ag Supply Center and Granary													\$28,571	\$28,571	
	Mini grants to communes													\$40,000	\$40,000	
	Appui Technique													\$30,635	\$30,635	
	FCE Community work															\$0
	Radio															\$0
	TOTAL		\$199,967	\$17,545	\$42,128	\$24,294	\$283,934			\$0	\$0		\$0	\$0	\$84,458	\$428,021

6.5 Summary of LDI Moramanga July 2001- June 2002 targets

Indicators 2001-2002	LDI Moramanga	Notes on the Indicator
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	Quantified Objectives	
Activity Level		
Agricultural Intensification <ul style="list-style-type: none"> - increase in production - increase in revenue - allocate credit 	<ul style="list-style-type: none"> - 20% - 20% - \$69,281 of which \$32,730 in rural credit and \$36,551 in input 	The increase in production and revenue is based on figures collected in the "cahiers de ménages". The total here corresponds to the total amount of credit granted to Kolo Harena members.
Environmental Education <ul style="list-style-type: none"> - carry out EE&C activities which target the Kolo Harena - carry out evaluations of the activities 	<ul style="list-style-type: none"> - 3 activities - 1 evaluation per ZSI 	
Community Management of Natural Resources <ul style="list-style-type: none"> - number of contracts drawn up - number of villages concerned in the community conservation - number of villages concerned in the sustainable use of natural resources - implemented of signed contracts 	<ul style="list-style-type: none"> - 5 contracts - 30 villages - 150 villages - 	
Promotion of EFE <ul style="list-style-type: none"> - number of EFE supported by LDI - total investments by supported EFE - expenditure of FIEFE funds - establishment of commercial relations between EFE and Kolo Harena 	<ul style="list-style-type: none"> - 20 EFE - \$94,000 - \$ - 1720 farmers 	The number of EFE supported by LDI is cumulative. LDI will continue to support existing EFE
Capacity Building <ul style="list-style-type: none"> - Work with Kolo Harena associations - Work with members of Kolo Harena associations - establish a system of farmer-to-farmer educators - Number of Federations of Kolo Harena associations reinforced with capacity-building activities 	<ul style="list-style-type: none"> - 150 associations - 3290 members - 70 animateurs villageois - 5 experts juniors 	<p>These indicators are cumulative.</p> <p>To assure the sustainability of activities, the animateurs villageois are selected by the KH members and will be trained by LDI to do technical extension for the other members.</p> <p>Federations are operational in Agricultural input supply centers management and other socio-organization related activities</p>
Sub-level Outcomes		
Reduce the expansion of agricultural land in the priority ecosystems <ul style="list-style-type: none"> - monitor the evolution of pressures in the ZSI 	1 pilot site: Ambalavero	This first step is to establish the methodology and procedures for monitoring tavy before later monitoring multiple activities throughout the ZSI.
Increase incentives for sustainable use of natural resource <ul style="list-style-type: none"> - inventory EFE transgressions in the LDI regions - evolution of turnover of the supported EFE - Number of created job opportunities 		<p>There were no quantifiable objectives given that show the results of LDI support in promoting the EFE.</p> <p>Those are EFE that came into existence without the support of LDI.</p>
Reinforce the capacity of Kolo Harenas to undertake sustainable practices <ul style="list-style-type: none"> - number of people using the technique package - number of Kolo Harena members who participate in conservation and development activities 	<ul style="list-style-type: none"> - 50% - 20% 	The associations which have their work plan participate in activities and follow-up evaluation of plans and participate in training which cover the themes.
Intermediate Results		
Sustainable Use of Natural Resources <ul style="list-style-type: none"> - incidence of tavy - incidence of fire 		These objectives have not been quantified, but the outcome will be noted when the study is complete.

6.6 Summary of activities

ZSI	Activities	Targets	Partners
Beforona ZSI	Sub-result 3.2.1 Limit the expansion of agricultural lands threatening priority ecosystems		
	Agricultural Intensification <ul style="list-style-type: none"> - Spread SRI/SRA techniques - Spread market gardening techniques - Spread cash crop techniques - Spread small animal husbandry techniques - Spread ecological and integrated agricultural practices - Create a Village Community Granary (VCG, "Grenier Communautaire Villageois" -GCV) - Facilitate access to inputs through micro-credit and supply centers 	SRA applied to 80% of rice fields SRI applied to 10% of rice fields 200% yield increase Market gardening development Intensify cash crops Develop small animal husbandry and integrate it with other agricultural practices	CIRPV NGOs ESSA CU Bevalala OTIV
	Environmental Education / Communication <ul style="list-style-type: none"> - Environmentally themed debate sessions with Kolo Harena Associations - Develop tools for environmental education for Kolo Harena Associations - Make KH themed motion pictures - Thematic radio broadcasts - Set up Village Cultural Center ("Centre Culturel Villageois") 	Adoption of environment-caring mind by the Kolo Harena Associations Coordinate environmental education and agricultural intensification	Rural community Radio Akon'Ambanivolo (RAA) SOCOFY CIM
	Community-based Renewable Natural Resources Management <ul style="list-style-type: none"> - Participatory forest management planning - Organize tavy (slush & burn) monitoring - Shape "terroir" (region meaning landscape) management plan, including mapping 	Soil conservation and protection Finalize ecosystem management contracts Adopt tavy monitoring system Establish terroir management system	Rural community Local government Miray ANGAP MEF
	Sub result 3.2.2 Increase in viable Conservation Enterprise & Ecotourism		
	<ul style="list-style-type: none"> - Develop and promote new product lines - Promote local harvest and conversion unit - Support ecotourism 	Reinforce Kolo Harena's relationship with the private sector Gain access to advanced market systems for Kolo Harena	NGOs, BEMA, PHAEL FLOR, PRONABIO Private Sector
	Sub result 3.2.3 Increased capacity of local actors to undertake sustainable practices		
	<ul style="list-style-type: none"> - Extend Kolo Harena Associations - Support Kolo Harena Federations - Transfer administrative and management skill to Kolo Harena Associations and Federations - Facilitate access to inputs through micro-credit and supply centers - Social organization 	Build capacities of partner organizations Make Kolo Harena Federations self-governing New capacity building initiatives	BEST OTIV Local government

ZSI	Activities	Targets	Partners
Ambatovy ZSI	Sub-result 3.2.1 Limit the expansion of agricultural lands threatening priority ecosystems		
	Agricultural Intensification <ul style="list-style-type: none"> - Spread SRI/SRA techniques - Spread market gardening techniques - Spread cash crop techniques - Spread small animal husbandry techniques - Spread ecological and integrated agricultural practices - Create a Village Community Granary (VCG, "Grenier Communautaire Villageois" -GCV) - Facilitate access to inputs through micro-credit and supply centers 	SRA applied to 80% of rice fields SRI applied to 10% of rice fields 200% yield increase Market gardening development Intensify cash crops Develop small animal husbandry and integrate it with other agricultural practices	Peace Corps Private sector Consultants NGOs OTIV
	Environmental Education / Communication <ul style="list-style-type: none"> - Environmentally themed debate sessions with Kolo Harena Associations - Develop tools for environmental education for Kolo Harena Associations - Thematic radio broadcasts - Set up Village Cultural Center (VCC, "Centre Culturel Villageois" -CCV) 	Adoption of environment-caring mind by the Kolo Harena Associations Coordinate environmental education and agricultural intensification	Rural community CIM
	Community-based Renewable Natural Resources Management <ul style="list-style-type: none"> - Reforestation - Participatory forest management planning - Elaboration of community-based pasture management plan 	Soil reclamation and protection Finalize ecosystem management contracts Establishment of pasture management system	MEF Peace Corps PDM Junior Expert Local government
	Sub result 3.2.2 Increase in viable Conservation Enterprise		
	<ul style="list-style-type: none"> - Develop and promote new product lines - Promotion of local harvest and conversion unit 	Reinforce Kolo Harena's relationship with the private sector Gain access to advanced market systems for Kolo Harena	Federation ASSOCIATION KOLO HARENA, Sté éleveur, MAROTIA Peace Corps
	Sub result 3.2.3 Increased capacity of local actors to undertake sustainable practices		
	<ul style="list-style-type: none"> - Extend Kolo Harena Associations - Set up and support Kolo Harena Federations - Transfer administrative and management skill to Kolo Harena Associations and Federations - Facilitate access to inputs through micro-credit and supply centers - Social organization 	Build capacities of partner organizations Make Kolo Harena Federations self-governing New capacity building initiatives	BEST OTIV Local government

ZSI	Activities	Targets	Partners
Lac Alaotra ZSI	Sub-result 3.2.1 Limit the expansion of agricultural lands threatening priority ecosystems		
	Agricultural Intensification <ul style="list-style-type: none"> - Spread SRI/SRA techniques - Spread market gardening techniques - Spread small animal husbandry techniques - Spread ecological and integrated agricultural practices - Irrigation improvement - Facilitate access to inputs through micro-credit and supply centers Environmental Education / Communication <ul style="list-style-type: none"> - Environmentally themed debate sessions with Kolo Harena Associations - Develop tools for environmental education for Kolo Harena Associations - Thematic radio broadcasts Community-based Renewable Natural Resources Management <ul style="list-style-type: none"> - Reforestation - Participatory forest management planning - Shape "terroir" (region meaning landscape) management plan, including mapping 	SRA applied to 80% of rice fields SRI applied to 10% of rice fields 200% yield increase Increase on rehabilitated field Market gardening development Intensify cash crops Develop small animal husbandry and integrate it with other agricultural practices Adoption of environment-caring mind by the Kolo Harena Associations Coordinate environmental education and agricultural intensification Soil restatement and protection Finalize ecosystem management contracts Establish terroir management system	CIREL, CIRPRH, CIRPV MADRIGAL NGOs CMS/Anosiboribory OTIV Rural community Local radio stations Rural community Local government CMS/Anosiboribory Miray, DURRELL ANGAP MEF
	Sub result 3.2.2 Increase in viable Conservation Enterprise		
	<ul style="list-style-type: none"> - Develop and promote new product lines 	Gain access to advanced market systems for Kolo Harena	SOALANDY, OTIV, Sté éleveur, MAROTIA
	Sub result 3.2.3 Increased capacity of local actors to undertake sustainable practices		
	<ul style="list-style-type: none"> - Extend Kolo Harena Associations - Set up and support Kolo Harena Federations - Transfer administrative and management skill to Kolo Harena Associations and Federations - Facilitate access to inputs through micro-credit and supply centers - Social organization 	Build capacities of partner organizations Make Kolo Harena Federations self-governing New capacity building initiatives	BEST OTIV Local government SOATEG, BEST

ZSI	Activities	Targets	Partners
Antanandava ZSI	Sub-result 3.2.1 Limit the expansion of agricultural lands threatening priority ecosystems		
	Agricultural Intensification <ul style="list-style-type: none"> - Spread SRI/SRA techniques - Spread market gardening techniques - Spread cash crop techniques - Spread small animal husbandry techniques - Spread ecological and integrated agricultural practices - Facilitate access to inputs through micro-credit and supply centers 	SRA applied to 80% of rice fields SRI applied to 10% of rice fields 200% yield increase Market gardening development Intensify cash crops Develop small animal husbandry and integrate it with other agricultural practices	CIRPV, CirEI, CIRPH MADRIGAL BRL, Mamokatra L'Eleveur FIFAMANOR NGOs Province of Tamatave
	Environmental Education / Communication <ul style="list-style-type: none"> - Environmentally themed debate sessions with Kolo Harena Associations - Develop tools for environmental education for Kolo Harena Associations - Thematic radio broadcasts - Support to Village Cultural Center (VCC, "Centre Culturel Villageois" -CCV) 	Adoption of environment-caring mind by the Kolo Harena Associations Coordinate environmental education and agricultural intensification	Rural Community Local radio stations
	Community-based Renewable Natural Resources Management <ul style="list-style-type: none"> - Reforestation - Lavaka (gully) stabilization - Participatory forest management planning 	Soil restatement and protection Finalize ecosystem management contracts	Tanimaitso FAFI, CirEF COBA
	Sub result 3.2.2 Increase in viable Conservation Enterprise		
	<ul style="list-style-type: none"> - Develop and promote new product lines - Promotion of local harvest and conversion unit 	Reinforce Kolo Harena's relationship with the private sector Gain access to advanced market systems for Kolo Harena.	Sté L'Eleveur, MAROTIA Private sector
	Sub result 3.2.3 Increased capacity of local actors to undertake sustainable practices		
	<ul style="list-style-type: none"> - Extend Kolo Harena Associations - Set up and support Kolo Harena Federations - Transfer administrative and management skill to Kolo Harena Associations and Federations - Facilitate access to inputs through micro-credit and supply centers - Social organization 	Build capacities of partner organizations Make Kolo Harena Federations self-governing New capacity building initiatives	BEST CORDAL OTIV

ZSI	Activities	Targets	Partners
Brickaville Vatomandry ZSI	Sub-result 3.2.1 Limit the expansion of agricultural lands threatening priority ecosystems		
	Agricultural Intensification <ul style="list-style-type: none"> - Spread SRI/SRA techniques - Spread market gardening techniques - Spread cash crop techniques - Spread small animal husbandry techniques - Spread ecological and integrated agricultural practices - Facilitate access to inputs through micro-credit and supply centers 	SRA applied to 50% of rice fields SRI applied to 10% of rice fields 50% yield increase Market gardening development Intensify cash crops Develop small animal husbandry and integrate it with other agricultural practices	CIRPV CIRAGRI CRS CIREL CHTT NGOs OTIV
	Environmental Education / Communication <ul style="list-style-type: none"> - Environmentally themed debate sessions with Kolo Harena Associations - Develop tools for environmental education for Kolo Harena Associations - Thematic radio broadcasts 	Adoption of environment-caring mind by the Kolo Harena Associations Coordinate environmental education and agricultural intensification	Rural community Local radio stations
	Community-based Renewable Natural Resources Management <ul style="list-style-type: none"> - Reforestation 	Soil restatement and protection Establish terroir management system	Rural community Local government MEF
	Sub result 3.2.2 Increase in viable Conservation Enterprise & Ecotourism		
	<ul style="list-style-type: none"> - Develop and promote new product lines - Support ecotourism 	Reinforce Kolo Harena's relationship with the private sector	NGOs, CHTT Private Sector
	Sub result 3.2.3 Increased capacity of local actors to undertake sustainable practices		
	<ul style="list-style-type: none"> - Extend Kolo Harena Associations - Administrative and management skill transfer to Kolo Harena Associations - Facilitate access to inputs through micro-credit and supply centers - Social organization 	Build capacities of partner organizations New capacity building initiatives	BEST, SOATEG OTIV Local government

ZSI	Activities	Targets	Partners
Fenerive ZSI	Sub-result 3.2.1 Limit the expansion of agricultural lands threatening priority ecosystems		
	Agricultural Intensification <ul style="list-style-type: none"> - Spread SRI/SRA techniques - Spread market gardening techniques - Spread cash crop techniques - Spread small animal husbandry techniques - Spread ecological and integrated agricultural practices - Facilitate access to inputs through micro-credit and supply centers 	SRA applied to 80% of rice fields SRI applied to 10% of rice fields 200% yield increase Market gardening development Intensify cash crops Develop small animal husbandry and integrate it with other agricultural practices	CIRPV NGOs OTIV
	Environmental Education / Communication <ul style="list-style-type: none"> - Environmentally themed debate sessions with Kolo Harena Associations - Develop tools for environmental education for Kolo Harena Associations - Thematic radio broadcasts 	Adoption of environment-caring mind by the Kolo Harena Associations Coordinate environmental education and agricultural intensification	Rural community Local radio stations
	Community-based Renewable Natural Resources Management <ul style="list-style-type: none"> - Reforestation 	Soil restatement and protection	Rural community Local government, MEF
Fenerive ZSI(contd.)	Sub result 3.2.2 Increase in viable Conservation Enterprise & Ecotourism		
	- Support to local investor on agricultural products transformation	Kolo Harena Associations access to market	Private Sector, Mondésir, BIOSAVE, CHTT
Fenerive ZSI(contd.)	Sub result 3.2.3 Increased capacity of local actors to undertake sustainable practices		
	<ul style="list-style-type: none"> - Extend Kolo Harena Associations - Administrative and management skill transfer to Kolo Harena Associations - Facilitate access to inputs through micro-credit and supply centers - Social organization 	Build capacities of partner organizations New capacity building initiatives	SOATEG OTIV Local government

ZSI	Activities	Targets	Partners
Regional support	Sub-result 3.2.1 Limit the expansion of agricultural lands threatening priority ecosystems		
	Agricultural Intensification Diffusion Center (AIDC, Centre de Diffusion pour l'Intensification Agricole –CDIA): - Promote agricultural intensification at the regional level through training, demonstrations and research Environmental Education / Communication - World Environment Day - Health, nutrition and environment		AGERAS, MIRAY, CIM IPI/Voahary salama
	Sub result 3.2.2 Increase in viable Conservation Enterprise		
	- Promote new products - Extend existing activities Ecotourism promotion - Regional workshop - Promote new activities - New investments	Reinforce Kolo Harena's relationship with the private sector Gain access to advanced market systems for Kolo Harena	Private sector, RANOMANITRA S.A.R.L Kolo Harena
	Sub result 3.2.3 Increased capacity of local actors to undertake sustainable practices		
	- E.J for supply centers - Functional training for supply center committees - Technical training for supply center managers - Functional training for KH Federations - Functional training for new KH - AIDC Committee management - Improve KH Federations' marketing capacity		SOATEG CIM, AGERAS, Communes AROM

VOLUME II

7. Cyclone Recovery Program

Tranche I

7.1 Fianarantsoa region



One of the dam and irrigated network rehabilitated in Ampahidranobe - Miarinarivo

7.1.1 Rehabilitation of Agricultural Infrastructure and Revitalization of Rural Production

The primary mission and strategy of the LDI Fianarantsoa cyclone recovery program is to protect and restore the watersheds of the mountainous forest corridor while at the same time increasing the ability of local communities to withstand shocks from future cyclones. To this end, the activities described below contribute in tandem with this broad strategy.

A summary of the main results during tranche I program is given below.

Activities	Accomplishments by 30 June 2001
Rehabilitation of productive infrastructure and systems	
Irrigation infrastructure rehabilitation	960 ha
Construction of agricultural supply center	2
GCV	3
Seed distribution	60.778 tons
FCE Community-based component	95 farmers
<i>Road repair and stabilization work on cyclone damaged roads</i>	
CAP roads	10 km, 1 ferry
Other rural roads	1 causeway

Strategic Challenge :

- To collaborate with the road users associations (AUP) associated with the CAP project to rehabilitate 146 km of roads in order to facilitate market and service access by local communities.
- To provide technical assistance of quality to the group of farmers who are the beneficiaries of the rehabilitation program in view of insuring the viability of the existing infrastructure.

Target : Rehabilitation of 146 km CAP priorities road

7.1.2 Road Repair and Stabilization Work on Cyclone Damaged Roads

Unless repairs are made in the near future to key secondary rural roads in the LDI Strategic Zones of

Intervention, local communities will sink further into poverty and isolation from national and international markets. Faced with no choice but to retreat further into subsistence agriculture, local communities will turn to the forest corridor as the last frontier of land available for slash-and-burn agriculture. Lacking access to markets for commercial products (bananas, coffee, litchi, pepper, cinnamon and other promising cash crops), farmers will return to traditional and low-risk agricultural subsistence practices. For this reason, cyclone recovery activities must focus on reconstruction of rural roads– the economic lifeline of the entire Fianarantsoa region.

The CAP roads were in excellent condition prior to the cyclones and very well engineered. Approximately \$132,000 of damage was done to the 156 km of roads built by CAP at a cost of \$853/km. This sum excludes the damage caused to embankments leading up to the Ambinanintromby bridge near Manampatrana. LDI with the NGO Lalana, carried out the technical study of the rehabilitation works along the CAP roads and the estimation of the rehabilitation cost were completed. Some road users associations have saved sufficient funds from road users fees to make necessary repairs, though in other cases, damages far exceed the sums available needed to contract construction companies. Following the organizational support from Lalana NGO, the AUP were able to benefit from the *Fonds d'Entretien Routier* (FER). The condition required for granting the financial assistance to the AUP was the contribution of 10% of the total cost from the beneficiaries. Preliminary rehabilitation works financed by the FER funds were completed by April 2001. LDI proceeded to engage ONG Lalana to help evaluate the cost of further rehabilitation required of the 156 km of damaged CAP roads. The bidding process for repairs to the CAP roads commenced in May. LDI Fianarantsoa will work with the road users associations and the ONG Lalana to repair “points noirs” on the various CAP roads. Feasibility studies will be undertaken to determine how much it will cost to LDI Fianarantsoa to repair a small bridge damaged on the Bekatra-Lokomby road. An effort will be made to favor hiring of local construction firms in order to stimulate local level employment and capacity building of the private road repair sector.

Activities	Work in Progress (1)	Projected Accomplishments for Completion by the end of the program (2)	TOTAL (1)+(2)
Rehabilitation of productive infrastructure and systems			
Irrigation infrastructure rehabilitation	350 ha	0	350 ha
Construction of agricultural supply center	2	0	2
GCV	3	0	3
Road repair and stabilization work on cyclone damaged roads			
CAP roads		146 km	146 km

7.1.3 Budget :
\$ 52,215 for the
rehabilitation of
146 km CAP
priorities road.



The Tranche II funding will be used to repair a bridge on the Bekatra-Lokomby road at PK 0+800.

7.2 Moramanga region

Cyclones regularly strike the coastal and mountainous regions of eastern Madagascar with varying degrees of intensity, damaging the regions' unique eco-systems and their intimately related economies. The province of Toamasina lies within this affected area and the protection of its Zahamena-Mantadia Forest Corridor, as well as the reduction of its rural poverty level, remain the main focus of the Moramanga LDI Program.

Throughout the region of Moramanga, from Antanandava (north) to Mahanoro (southeast) and from Ambatovy (southwest) to Fenerive Est (northeast), roads, railroads, bridges, agricultural installations and irrigation systems have suffered greatly from heavy rainstorms and subsequent flooding over the last two years. Typically, each cyclone has progressively depleted what little rural infrastructure remains, as unaddressed damage from previous cyclones accrues. Many lowland fields have been rendered useless without rehabilitation; harvests in the damaged areas were drastically lowered or lost completely; the price of staple goods - if they were available - skyrocketed; the purchase of staple goods at excessive prices put agricultural supplies such as seeds out of financial reach for much of the area's population. Thus, rural populations regularly confront the very serious dilemma of mere survival. Due to weather-exacerbated isolation, loss of agricultural crops, and an inability to fully utilize available resources, local inhabitants increase pressure on the natural forest (in the form of slash and burn agriculture), as a means to quickly address their needs in the least risky manner.



The rehabilitated Lovoka dam

Initial cyclone funding allowed LDI to quickly address the needs of the communities most seriously affected by the passage of the two cyclones. A summary of principal activities as of June 30, 2001 is shown in the following Table:

Nature of work	Completed work as of June 30, 2001
Rehabilitation of productive infrastructure and systems	
Irrigation infrastructure rehabilitation	599 ha
Construction of agricultural input supply center	5
Seed distribution	144.1 tons
Disaster preparedness and response planning	
Number of communes assisted	3
Road repair and stabilization work on cyclone damaged roads	
Other rural roads	700m

7.2.1 Rehabilitation of Agricultural Infrastructure and Revitalization of Rural Production

Based on discussions with local communities, LDI Moramanga identified priority interventions necessary in the region after the passage of two cyclones during the 2000 season. Communities affected by the cyclones have expressed their appreciation for the responsiveness of LDI's efforts in cyclone relief. One of the most noteworthy aspects of LDI Moramanga's interventions is the synergy between regularly funded agricultural intensification activities and the cyclone recovery program. As an example, during the first year of cyclone rehabilitation activities, LDI Moramanga began the rehabilitation of the Lovoka irrigation system (effectively irrigating 577 ha that benefited over 800 farmers) which serves a total area of 1200 ha. Rehabilitation will continue in the second year of cyclone relief activities completing the 1200 ha. This rehabilitation effort is exceptional because it cost nearly five times less per unit area rehabilitated than comparable World Bank projects, which tend to range from \$1500-\$3500 per rehabilitated ha. For farmers to take greatest advantage of their newly available and rehabilitated lands, Agricultural Input Supply Centers were built to allow farmers to have easier access to tools and better seeds. Five Agricultural Input Supply Centers were established and are managed by the Kolo Harena Farmer Federations. The sale of 144 tons of short-cycle seeds (composed of rice and off-season crops such as rice, maize and potato) surpassed the objective of 128 tons by 12%. These activities dovetailed nicely with IF-funded activities including rural credit, agricultural intensification training, and efforts in capacity building.



LDI Moramanga activities not only provide technical assistance and access to rural credit - they also build capacity. Three 'communes' of the Moramanga area, namely Beforona, Ambohibary and Morarano, were supported to develop their Disaster Preparedness and Response Plans. The communal plans have been drawn up, and small-scale grant opportunities have been identified for LDI financing.

7.2.2 Projected Accomplishments from July 2001 till the end of the Program

During the 2001-2002 cycle, LDI Moramanga plans to rehabilitate about 645 ha of irrigation systems under this first allotment funds. Table below provides a synopsis of planned project accomplishments:

Nature of work	Work in Progress (1)	Work to be completed by the end of the program (2)	Total (1)+(2)
Rehabilitation of productive infrastructure and systems			
Irrigation infrastructure rehabilitation	130 ha	515 ha	645 Ha
Disaster preparedness and response planning			
Number of communes assisted	0	7	7

In addition to these targets, LDI Moramanga will rehabilitate the FOFIFA research center in Ilaka Est which will serve as a source of improved germplasm, and as a training center and demonstration area for farmers in the Brickaville-Mahanoro-Vatomandry ZSI. LDI Moramanga and FOFIFA have already signed a memorandum of understanding concerning joint use of the center, and work will begin soon on rehabilitation efforts.

7.2.3 Budget

Activities	Indicators	Sum
Tranche I		
Irrigation system		
Lovoka Ankeniheny	280 ha	\$30,159
Lovoka Manorenjy	190 ha	\$20,794
Iazafo Amparibe	130 ha	\$12,857
Ambatovy Androfia	45 ha	\$20,647
Total Tranche I	645 ha	\$84,457

7.2.4 Important Dates for Cyclone Recovery Program

Irrigation Systems	ZSI	Sept.-01	Oct.-01	Nov.-01	Dec.-01	Jan.-02	,,,	June-02
Lovoka Ankeniheny	Antanandava		S			T PR		DR
Lovoka manorenjy	Antanandava		S			T PR		DR
Iazafo Amparibe	Fénérive	S			T PR			DR
Ambatovy Androfia	Ambatovy		S			T PR		DR

S : Start of work

T : Termination of work

PR : Provisional reception of work

DR : Definitive reception of work

7.3 – Summary of Fianarantsoa and Moramanga Tranche I activities

Activities	Completed work as of June 30, 2001 (1)	Work in Progress (2)	Work to be completed by the end of the Program (3)	Total (1)+(2)+(3)
Rehabilitation of productive infrastructure and systems				
Irrigation infrastructure rehabilitation	1559ha	480 ha	515 ha	2554 ha
Construction of agricultural supply center	7	2	0	9
GCV	3	3	0	6
Seed distribution	204.878 tons	0	0	204.878 tons

FCE Community-based component	95 farmers	0	0	95
Disaster preparedness and response planning				
Nombre de communes assistées	3 Communes	0	7 Communes	10 Communes
Road repair and stabilization work on cyclone damaged roads				
CAP roads	10 km, 1 ferry		146 km	156 Km, 1 ferry
Other rural roads	1 causeway, 700 m		0	1 causeway 700 m

Tranche II

7.4 Fianarantsoa region

The LDI Fianarantsoa cyclone recovery program for tranche II funding builds on many of the activities planned for the previous tranche funding cycles.

Strategic Challenges

- To strengthen food security among vulnerable rural populations through environmental protection and restoration activities launched with success by LDI field agents and partner organizations during the first two years of the LDI program.
- To seek to utilize supplemental fund to build the resiliency of local communities to withstand better future shocks from natural disasters

Targets

The following specific targets are adopted by the LDI Fianarantsoa program over a two-year period in its strategic zones of intervention the length of the Ranomafana – Andringitra forest corridor.

activities	Work in Progress 1)	Remaining Work to be Completed by the end of the program 2)	OTAL 1) +(2)
<i>Rehabilitation of productive infrastructure and systems</i>			
Irrigation infrastructure rehabilitation	150 ha	553 ha	703 ha
Seed distribution	22.8 metric tons	22.2 metric tons	45 metric tons
FCE Community-based component	55 farmers	0	55 farmers
Disaster preparedness and response planning			
Number of Assisted Communes	14	0	14

7.4.1 Rehabilitation of Agricultural Infrastructure and Revitalization of Rural Production

Rehabilitation of Irrigation Systems

The LDI Fianarantsoa program will continue to invest in the reconstruction of irrigation systems damaged by previous cyclones. These activities will complement on-going LDI Intervention Fund activities by allowing the program to expand its impact over a wider scale. Tranche II funding will permit the construction of small dams, dikes, and irrigation channels for a total of **703** hectares. The LDI irrigation specialist identified a number of sites and launched preliminary technical and socioeconomic feasibility studies. This identification process was held in close concertation with the Kolo Harena, the Comité de Développement Communal, the commune authorities, and with field staff from LDI and partner organizations. At each site, LDI Fianarantsoa will set up water user's associations to assure maintenance and provide other technical services and training to villagers at the sites.



One of the dam and irrigation network to be rehabilitated in Miarinarivo.

These sites are located at :

Strategic Zones of Intervention	Sites	Perimeters
Ikongo	Fiovana	123 hectares
Tolongoina	Ambodivanana, Madiorano,	240 hectares
Miarinarivo	Andangovato, Vatovolahy, Ampihamenandrambo	340 hectares
	Total	703 hectares

Work planning for rehabilitation under Tranche II

Months	September 01				October 01				November 01				December 01			
Weeks	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Bidding process																
Site Visits																
Evaluation of bids																
Work commencement																
Construction period																
Provisional and technical reception																

7.4.2 Seed Distribution

The seed distribution program will continue with the sale at subsidized prices through the Agricultural supply center of a total of **45** metric tons of seed consisting primarily of rice (variety X 265), corn (Meva, IRAT 240, and Volasoa), potato and beans. As during Tranche I funding cycle, the seeds will be sold at half price to all members of the local community just at the time of planting. This will avoid speculation and consumption of seed for food. The revenues from the sale of this seed will be held by the Federation of Kolo Harena through the Agricultural supply center and employed for small-scale income generation activities and an association credit system. These funds will be used to expand investments through Kolo Harena rural associations in popular agricultural intensification activities like SRI and SRA rice production, fish culture associated with lowland rice cultivation, small-scale livestock husbandry, beekeeping, and dry-season vegetable and tuber production. A contract agreed with the Kolo Harena Federations mentioned that these funds will be spent on investments in materials (e.g. purchase of a centrifugal machine for beekeepers) rather than operational expenditures. Efforts will be expanded to restore *tanety* lands in ecologically sensitive areas through the introduction of vetiver and perennial cash crops. Linkages with the commercial agricultural sector will be expanded to support further the growth of “bio” farms like that of AGROMAN farm near Manakara. Revitalization of the cash crop economy along the eastern corridor will expand, not only through rehabilitation of coffee, but through the introduction of promising alternative perennial crops like black pepper, ravensara, and improved varieties of citrus.

7.4.3 Mini-Grants to Communes

Supplemental cyclone recovery funds will be a great incentive for rural “communes” to develop cyclone preparedness plans through a participatory planning process already launched in the majority of the LDI's Strategic Zones of Intervention. Developed in conjunction with the Plan de Développement Communal, communes will each be able to obtain a small grant for cyclone preparedness and recovery activities. The Plan de Développement Communal process led by SAGE-AGERAS/CMP (Comité Multi-local de Planification) is generating innovative ideas on how to increase food production but at the same time, reduce pressures on the economically and ecologically vital forest corridor. But the planning process unfolding in the region is also a forum for working with local communities to plan disaster mitigation programs. LDI works with Cabinet R

Conseil to generate community reflection and action on a sustainable development considering the impacts of periodic tropical depression.

7.4.4 Budget

Activities	Projected accomplishment 2001-2002	Sum
Tranche II		
Dams	3 dams - 703 ha	\$112,027
Technical Assistance to farmer associations	N/A	\$25,500
Seeds	45 Tons	\$12,341
Mini-grants Communes	14 communes	\$40,000
Total Tranche II		\$189,868

7.5 Moramanga region

7.5.1 Rehabilitation of Agricultural Infrastructure and Revitalization of Rural Production

For cyclone recovery program – tranche II -, LDI Moramanga extended its range of interventions with the opening of two new Strategic Zones of Intervention ('ZSI'): Fenerive Est and Brickaville-Vatomandry-Mahanoro. At the community level, local governments and populations showed great interest and fully participated in LDI Moramanga's efforts to create Disaster Preparedness and Response Plans. The initiatives came entirely from communities while LDI Moramanga regional staff worked as a catalyst for the development of the plans.

The table below shows the project main accomplishments as of June 30, 2001.



Non-productive rice fields that are now productive because of the Lovoka rehabilitation

Nature of work	Completed work as of June 30, 2001
Rehabilitation of productive infrastructure and systems	
Irrigation infrastructure rehabilitation	80 ha
Seed distribution	39.539 tons

7.5.2 Projected Accomplishments from July 2001 till the end of the Program

During the 2001-2002 cycle, LDI Moramanga plans to rehabilitate about 2 395 ha of irrigation systems, to distribute 40 tons of seeds, and to build 4 agricultural supply centers. The table below provides a synopsis of planned project accomplishments :

Nature of work	Work in Progress 1)	Work to be completed 2)	TOTAL 1)+(2)
Rehabilitation of productive infrastructure and systems			
Irrigation infrastructure rehabilitation	480 ha	1915 ha	2 395 ha
Construction of agricultural supply center	0	4	4
Seed distribution	0	40 tons	40 tons
Disaster preparedness and response planning			
Number of communities assisted	16	0	16

7.5.3 Budget

Activities	Indicators	Sum
Tranche II		
Feasibility studies, rehabilitation plans and follow-up monitoring of the Lovoka Ankeniheny and Manorenjy, Izafo Lanary and Amparibe, Ivakaka, and Ampitahikosa irrigation systems		\$58,388
Construction of the Izafo Lanary, Ivakaka phase I, Ampitahikosa, Ivakaka phase II, and Ambatovy Ambohivitsy irrigation systems	5 dams 2395 ha	\$260,110
Agricultural input supply centers	4 units	\$28,571
Seeds	40 Tons	\$10,317
Technical assistance		\$10,000
Centre pour la Diffusion de l'Intensification Agricole (CDIA) Ilaka Est		\$20,635
Mini-grants to Communes	16 communes	\$40,000
Total Tranche II		\$ 428,021

7.5.4 Important Dates for Cyclone Recovery Program

Agricultural Input Supply Centers	ZSI	Sept.-01	Oct.-01	Nov.-01	Dec.-01	Jan.-02	,,,	Nov.-02
Lovoka	Antanandava		S		T	PR		DR
Maromitety	Fénérive		S		T	PR		DR
Ilaka est	Vatom - Brick		S		T	PR		DR
Brickville	Vatom - Brick		S		T	PR		DR

S: Start of work

FPM: Feasibility study, plan development and monitoring

T: Termination of work

PR: Provisional reception of work

DR: Definitive reception of work

7.6 Summary of Fianarantsoa and Moramanga Tranche II activities

Activities	Work finished as of June 30, 2001 (1)	Work in progress (2)	Work to be completed (3)	Total (1)+(2)+(3)
Rehabilitation of productive infrastructure and systems				
Irrigation infrastructure rehabilitation	80ha	630 ha	2468 ha	3178 ha
Construction of agricultural supply center	0	0	4	4
Seed distribution	39.539 tons	22.8 tons	62.2 tons	124.539 tons
FCE Community-based component	0	55 farmers	0	55 farmers
Road repair and stabilization work on cyclone damaged roads				
Number of communes assisted	0	30	0	30

7.7 Summary of Fianarantsoa and Moramanga activities for both tranches (I and II)

Activities	Completed work as of June 30, 2001 (1)	Work in Progress (2)	Work to be completed by the end of the Program (3)	Total (1)+(2)+(3)
Rehabilitation of productive infrastructure and systems				
Irrigation infrastructure rehabilitation	1639ha	1110 ha	2983 ha	5732 ha
Construction of agricultural supply center	7	2	4	13
GCV	3	3	0	6
Seed distribution	244.417 tons	22.8 tons	62.2 tons	329.417 tons
FCE Community-based component	95 farmers	55 farmers	0	150 farmers
Disaster preparedness and response planning				
Nombre de communes assistées	3 Communes	30 Communes	7 Communes	40 Communes
Road repair and stabilization work on cyclone damaged roads				
CAP roads	10 km, 1 ferry		146 km	156 Km, 1 ferry
Other rural roads	1 causeway, 700 m		0	1 causeway 700 m